PELICAN FIRE
BURNED AREA EMERGENCY STABILIZATION PLAN

AGENCY/UNIT: U.S. Fish and Wildlife Service
San Joaquin National Wildlife Refuge

LOCATION: Stanislaus County, California

DATE: July 29, 2004

PREPARED BY: United States Department of the Interior
Burned Area Emergency Response Team

Submitted By:_____ **Date:**
Kim Forrest, Project Leader
San Luis National Wildlife Refuge Complex

U.S. DEPARTMENT OF THE INTERIOR
BURNED AREA EMERGENCY STABILIZATION PLAN

PART I REVIEW AND APPROVAL

I. EMERGENCY STABLIZATION PLAN CONCURRANCE

- ☐ **Approved**
- ☐ **Approved with Revision**
- ☐ **Disapproved**

Explanation for Revision or Disapproval:

Project Leader, San Luis NWRC Date

II. EMERGENCY STABILIZATION CONCURRENCE

- ☐ **Concur**
- ☐ **Concur with Revision**
- ☐ **Disapproved**

Explanation for Revision or Disapproval:

Regional Fire Management Coordinator Date

III. EMERGENCY STABILIZATION CONCURRENCE

- ☐ **Concur**
- ☐ **Concur with Revision**
- ☐ **Disapproved**

Explanation for Revision or Disapproval:

Manager, California/Nevada Operation Date

IV. EMERGENCY STABILIZATION APPROVAL

- ☐ **Approved**
- ☐ **Approved with Revision**
- ☐ **Disapproved**

Explanation for Revision or Disapproval:

Chief, National Wildlife Refuge System Date

EXECUTIVE SUMMARY

This plan addresses emergency stabilization of fire effects on San Joaquin National Wildlife Refuge as a result of the 1,453 Pelican Fire in Stanilaus County, California. The plan has been prepared in accordance with the *Department of the Interior, Departmental Manual, Part 620: Wildland Fire Management, Chapter 3.6:* and the U.S. Fish & Wildlife Service Manual 095 FW 3.9 with implementation guidance Chapter 5 FWS Fire Management Handbook. This document provides emergency stabilization recommendations for U.S. Fish & Wildlife Service lands within the Pelican Fire.

The primary objectives of the Pelican Fire Burned Area Emergency Stabilization Plan are:

- To prescribe post-fire mitigation measures necessary to protect human life, property, and critical cultural and natural resources;

- To promptly mitigate the unacceptable effects of the fire impacts on lands within the burned area in accordance with management policy and guidelines and all relevant federal, state/local laws and regulations;

The U.S. Department of the Interior, Burned Area Emergency Response (BAER) Team has conducted an analysis of fire effects on San Joaquin National Wildlife Refuge using ground reconnaissance methods and satellite imagery. The plan primarily addresses impacts to the Federally endangered riparian brush rabbit. While the Pelican Fire burned only 1,453 acres of San Luis National Wildlife Refuge this are included the primary release location and habitat for the riparian brush rabbit which occurs in only two other locations in the world. Survival of the more than 200 riparian brush rabbits known to occur within the burn and recovery of their suitable habitat is critical to the recovery of the species because more than 98 percent of riparian habitat in California's Central Valley has been lost and there are limited protected areas in which the riparian brush rabbit can be reestablished. The U.S. Fish and Wildlife Service and Bureau of Reclamation have spent more than $4 million in the past 2 years on the captive breeding and reintroduction program at San Joaquin National Wildlife Refuge.

Of the more than 200 rabbits released within the burn area over the last year 65 have been radio collared for monitoring purposes. At the time of this report submission 48 of the 65 rabbits have been located. Two rabbits were found dead. While these preliminary telemetry results are promising, animals may be injured, stressed, and prone to increased predation due to loss vegetation cover and forage within their primary and secondary habitat.

For these reasons members of the recovery team including U.S. Fish and Wildlife Service refuge biologists, biologist of the Service's Endangered Species Recovery Program, research biologists of the Endangered Species Recovery Program of California State University Stanislaus have recommended immediate establishment of a new release pen at a suitable release site within San Joaquin NWR south of the Pelican Fire Burned Area. Establishment of this new release site is consistent with long-term recovery plan objectives and will allow for emergency capture and release of animals from the burned area should trapping and increased telemetry monitoring of the populations indicates that such an action is required to reduce predation and mortality.

The biologists further recommend the immediate trapping of animals to inspect them for injuries sustained from the fire and determine their relative health following loss of cover and forage. Increased telemetry monitoring will be applied to determine if animals in the wild are being lost due to increased predation or stress due to fire effects.

This plan documents that damage to the resources of San Joaquin NWRC and provides specific costs for emergency stabilization actions necessary to ensure that additional riparian brush rabbits are not lost due to post fire conditions and adequate recovery of vegetative cover and forage occurs during the next growing season to support the species within the reintroduction area consistent with approved recovery

plan goals. All specifications are fully consistent with the approved *Land Protection Plan* (1987), Fire Management Plan (2004), and Draft Comprehensive Conservation Plan (2004) for the San Joaquin National Wildlife Refuge and San Luis National Wildlife Refuge Complex, as well as the *Recovery Plan for Upland Species of the San Joaquin Valley, California*.(1998). The Upland species Recovery plan includes the recovery plan for both the riparian brush rabbit and the riparian wood rat also believed but not confirmed to occur within the burned area.

Fire Information

The Pelican Fire started on July 19, 2004 at approximately 2:30 PM along Highway 132 within the boundary of San Joaquin National Wildlife Refuge. The fire suppression effort was managed under a Unified Command with Stanislaus County with assistance from local fire departments and the California Department of Forestry and Fire Protection. On Sunday July 24, 2004 the Pelican Fire was declared contained and county and local resources were released. Suppression tactics included limited handline construction and back burning off of existing fire breaks. The Pelican Fire was declared controlled on July 28, 2004.

ISSUES AND OBJECTIVES

The BAER Team was assembled on Wednesday July 21, 2004 at the San Joaquin National Wildlife Refuge and with the approval of the Incident Command Team initiated preliminary damage assessments and photo documentation of all impacts to refuges resources.

Issues identified by the Team included:

- Boundary Fence and Refuge Closure Sign Damage
- Loss of Riparian Brush Rabbit Cover and Forage
- Damage to Riparian Brush Traps
- High Potential for Noxious Weed Spread within the Burned Area
- Potential Need to Relocate Riparian Brush Rabbits to Location outside the Burn
- Need to Monitor Recovery of Rabbit Cover and Forage Species Noxious Weeds

Each of the above issues directly relate to mitigating impacts of the Pelican Fire to management and recovery of the Federal endangered riparian brush rabbit and is fundable under the U.S. Department of the Interior, Burned Area Emergency Stabilization Program.

Implementation of the mitigation treatments for the riparian brush rabbit and its habitat should be initiated as quickly as possible through the Implementation Leader designated for the project. It will be important for the Implementation Leader to coordinate the recommended activities, track budgets, coordinate contracts, and prepare accomplishment reports.

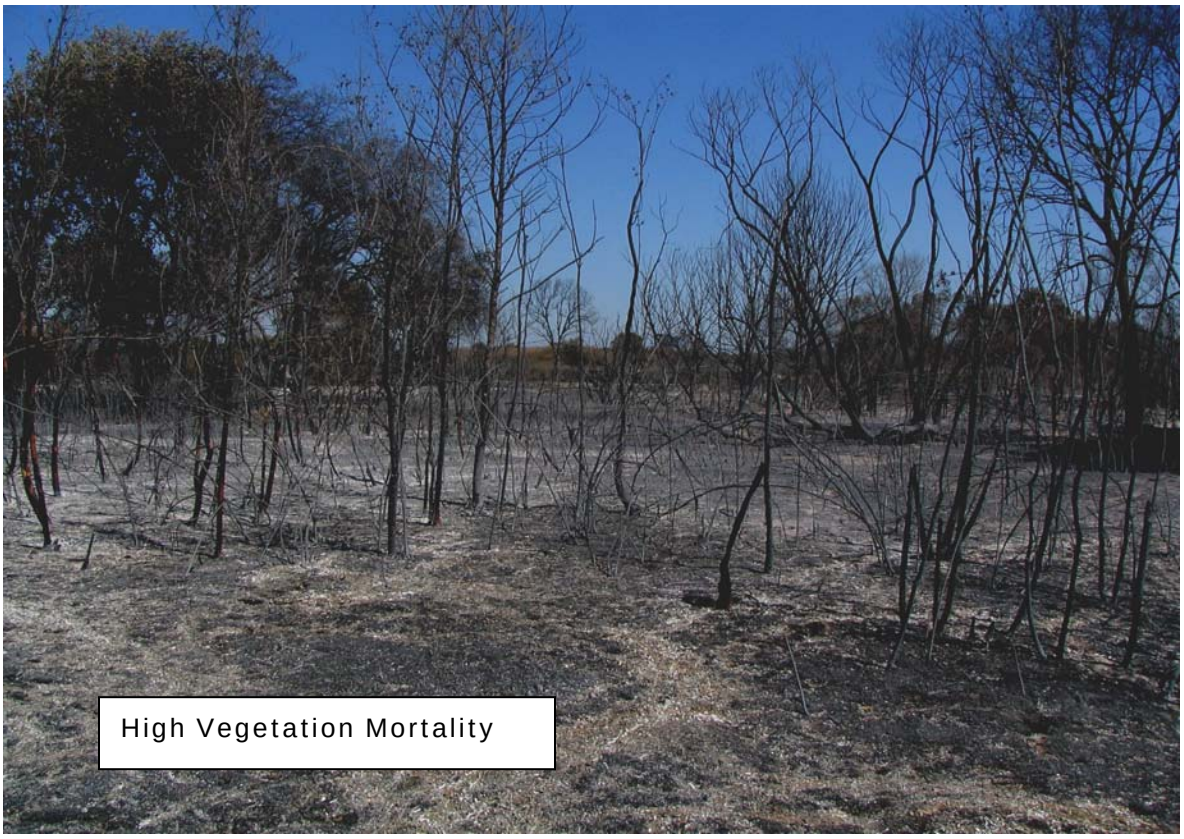
This Emergency Stabilization Plan is the initial funding request for Emergency Stabilization funds. Additional supplemental requests may be made after this document has been reviewed and approved. It is recommended that supplemental requests be made on an as needed basis. The Emergency Stabilization Funds for this plan extends over one year from the date of containment of the fire. At the conclusion of the funding period, a final Accomplishment Report will be due to the approval authority. The Accomplishment Report will document the funding received (initial and supplemental funding), treatments installed, the effectiveness of the installed treatments, and the results of monitoring activities. This Plan was submitted to the approving official, in accordance with Interagency Burned Area Emergency Stabilization and Rehabilitation guidelines within 10 days of fire containment.

Fire Approaches River at Heron Rookery

Fire Spots Over San Joaquin River

Smoke Plume Looking East from River Road

Pelican Fire & San Joaquin River



High Vegetation Mortality

Low Vegetation Mortality

Noxious Weeds

U.S. DEPARTMENT OF THE INTERIOR
BURNED AREA EMERGENCY STABILIZATION PLAN

PART A FIRE LOCATION AND BACKGROUND INFORMATION

Fire Name	Pelican Fire	**Jurisdiction**	**Acres**
Fire Number	CA-LUR-001525	**US Fish & Wildlife Service**	**1,453**
Agency Unit	FWS	**State**	
Region	California/Nevada Operations	**Private**	
State	California		
County(s)	Stanislaus		
Ignition Date/Manner	July 19, 2004/ Human		
Zone	South Zone		
Date Contained	July 24, 2004		
Date Controlled	July 28, 2004	**TOTAL**	**1,453**

PART B NATURE OF PLAN

I. Type of Plan (check one box below)

Initial Submission	**X**
Update and Revising Initial Submission	
Supplying Information For Accomplishment To Date On Work Underway	
Different Phase Of Project Plan	
Final Report (To Comply With The Closure Of The EFR Account	

PART C EMERGENCY STABILIZATION OBJECTIVES

- Locate and stabilize severely burned conditions that pose a direct threat to human life, property, or critically important cultural and natural resources.

- Recommend post-fire emergency stabilization prescriptions that prevent irreversible loss of natural and cultural resources.

- Conduct immediate post-burn reconnaissance for fire suppression related impacts to threatened and endangered (T&E) species, and cultural sites.

- Develop monitoring specifications design to document relative effectiveness of emergency stabilization treatments or whether additional emergency stabilization treatments are required.

U.S. DEPARTMENT OF THE INTERIOR
BURNED AREA EMERGENCY STABILIZATON PLAN

PART D TEAM ORGANIZATIONS, TEAM MEMBERS, RESOURCE ADVISORS

I. BAER TEAM MEMBERS

POSITION	TEAM MEMBER / AGENCY
Team Leader	Richard Hadley, FWS
Wildlife	Karen Hayden, FS
Environmental Protection & Compliance	Richard Hadley, FWS
GIS	Bob Beckworth, BIA Chris English, BIA
Vegetation Specialist	Mike Dolan, BLM
Cultural Resource Specialist	Dan Hall, BIA

IV. Resource Advisors: (Note: Resource Advisors are individuals who assisted the BAER Team with the preparation of this plan. See Part H of this plan for a full list of agencies and individuals who were consulted or otherwise contributed to the development of this plan.

NAME	AFFILIATION / SPECIALTY
Kim Forrest	Project Leader, San Luis NWRC
Bob Parris	Deputy Project Leader, San Luis NWRC
Tracey Germino	Budget Technician, San Luis NWRC
Ken Griggs	Wildlife Biologist, San Joaquin River NWR
Eric Hopson	Refuge Manager, San Joaquin River NWR
Peter Kelly	FMO, San Luis NWRC
Shawn Millar	Wildlife Biologist, San Luis NWRC
Brian Paul	Prescribed Fire Specialist, San Luis NWRC
Todd Williams	Wildlife Biologist, San Luis NWRC
Stephen Williams	Wildlife Biologist, San Luis NWRC
Dennis Woolington	Supervisor Wildlife Biologist, San Luis NWRC

NAME	AFFILIATION / SPECIALTY
Mary Christ	Administrative Officer, San Luis NWRC
Laurissa Hamilton	Endangered Species Recovery Program, California State University, Stanislaus
Dr. Patrick Kelly	Endangered Species Recovery Program, California State University, Stanislaus
Loren Ruport	Easement Program Manager, San Luis NWRC

PART D - SUMMARY OF APPROVAL AUTHORITIES

ACTIVITIES REQUIRING LINE OFFICER'S APPROVAL **Fire Suppression Damages (charged to Fire Suppression)**	**COST**
SUPPRESSION	
Road Regrading (cost not tracked in this plan)	-
Safety Zone and Handline Rehabilitation (cost not tracked in this plan)	-
Repair Release Pen Cut by Suppression Crew (cost not tracked in this plan)	-

ACTIVITIES REQUIRING REGIONAL OFFICE APPROVAL **Emergency Stabilization Requests (Charged to ES)**	**COST**
SUBTOTAL	

ACTIVITIES REQUIRING NATIONAL OFFICE APPROVAL **Emergency Stabilization Requests (Charged to ES)**	**COST**
W-1 Monitor Riparian Brush Rabbits for Increased Predation/Mortality	$42,494
W-2 Trap and Relocate Riparian Brush Rabbits	$92,805
V-1 Monitor Vegetation Recovery and Treatments	$51,150
V-2 Noxious Weed Control	$128,493
V-3 Native Grass Seeding	$195,507
I-1 Replace Refuge Boundary and Area Closure Signs	$875
I-2 Repair/Reconstruct Boundary Fence	$10,140
O-1 Implementation Leader	$56,440
SUBTOTAL	**$577,904**

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PELICAN FIRE

PART E SUMMARY OF ACTIVITIES

The SUMMARY OF ACTIVITIES table identifies emergency stabilization costs charged or proposed for funding from fire suppression rehabilitation, emergency stabilization, or rehabilitation funding sources. The total cost of the treatments excluding the costs absorbed by the fire (fire crew, labor and associated overhead) is displayed as either Fire Suppression Rehabilitation (**SR**), Emergency Stabilization (**ES**), Rehabilitation (**R**), or Agency Operations/Other (**OP/O**).

No.	TREATMENT SPECIFICATION	UNIT	UNIT COST	# OF UNITS	COST BY FUND SOURCE			IMPLEMENTATION METHOD	SPECIFICATION TOTAL
					SR	ES	R		
W-1	Monitor Riparian Brush Rabbits for Increased Predation/Mortality	Day	$654	65	-	$42,494	-	C	$42,494
W-2	Trap and Relocate Riparian Brush Rabbits	Rabbit	$412	225	-	$92,805	-	C	$92,805
V-1	Monitor Vegetation Recovery and Treatments	Survey	$731	35	-	$51,150	-	P	$51,150
V-2	Noxious Weed Control	Acre	$395	325	-	$128,493	-	C	$128,493
V-3	Native Grass Seeding	Acre	$391	500	-	$195,507	-	C	$195,507
I-1	Replace Refuge Boundary and Closure Signs	Sign	$35	25	-	$875	-	P	$875
I –2	Repair/Reconstruct Boundary Fence	Feet	$3.70	2,740	-	$10,140	-	C	$10140
0-1	Implementation Leader	Pay Period	$2,171	26	-	$56,440	-	P	$56,440
TOTALS					**$0**	**$577,904**	**$0**		**$577,904**

U.S. FISH & WILDLIFE SERVICE
BURNED AREA EMERGENCY STABILIZATION PLAN

PART F - SPECIFICATION

SPECIFICATION TITLE:	INCREASED TELEMETRY MONITORING OF RIPARIAN BRUSH RABBIT	**JURSIDICTIONS:**	FWS
PART E: LINE ITEM:	W-2 TELEMETRY MONITORING	**FISCAL YEAR:**	2004 -2005
ESR REFERENCE #:	6.3.8.1 Threatened & Endangered Species	**SPECIFICATION TYPE:**	ES

WORK TO BE DONE

A. Provide a Brief General Description of Treatment
Radio collared riparian brush rabbits will be monitored at an increased frequency to determine if loss of vegetative cover and forage following the Pelican Fire is resulting in increased mortality. The results of this monitoring will be used in combination with live trapping of collared and uncollared rabbits to determine if they should be relocated to a new release site within San Joaquin NWR outside the Pelican burned area.
B. Describe Specific Treatment Location or General Description of Suitable Sites for Treatment
C. Provide and Number Detailed Design/Construction Specifications
See established telemetry data collection protocol for riparian brush rabbits.
D. Describe Purpose of Treatment Specification – What Resource will be Protected
The reintroduced Federal endangered riparian brush rabbit population within the burned area is now at significantly greater risk to mortality due to lost cover and forage as a result of the Pelican Fire. This specification provides for telemetry monitoring of to determine if increased mortality of the rabbits has significantly increased due to post fire conditions.
E. Describe Treatment Effectiveness Monitoring
See established protocols.

LABOR, EQUIPMENT, MATERIALS, AND OTHER COST:

PERSONNEL SERVICES (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item **Do not include contract personnel costs here (see contractor services below).**	**COST/ITEM**
	N/A
TOTAL PERSONNEL SERVICE COST	**N/A**
EQUIPMENT PURCHASE, LEASE, OR RENTAL (Item @ Cost/Hours or Cost/Day or # Days X # Fiscal Years = Cost/Item) Note: Purchase requires written justification that demonstrates cost/item benefits over lease or rental.	**COST/ITEM**
	N/A
TOTAL EQUIPMENT PURCHASE, LEASE, OR RENTAL COST	**N/A**
MATERIAL AND SUPPLIES (Item @ Cost/Each X Quantity X # Fiscal Years = Cost/Item)	**COST/ITEM**
	N/A
TOTAL MATERIAL AND SUPPLY COST	**N/A**
TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X # Fiscal Years = Cost/Item	**COST/ITEM**
	N/A
TOTAL TRAVEL COST	**N/A**
CONTRACT COST (Labor or Equipment @ Cost/Hour X # Hours X # Fiscal Years = Cost/Item)	**COST /ITEM**

Contracted Telemetry Monitoring with Existing Riparian Brush Rabbit Researchers	**$42.494**
TOTAL CONTRACT COST	**$42,494**

SPECIFICATION COST SUMMARY

FISCAL YEAR	UNIT	UNIT COST	# OF UNITS	COST	FUNDING SOURCE	METHOD
2004	**Days**	**$654**	**65**	**$42,494**	**ES**	**C**
2005	**-**	**-**	**-**	**-**	**-**	**-**
2006	**-**	**-**	**-**	**-**	**-**	**-**
TOTAL	**Days**	**$654**	**65**	**$42,494**	**ES**	**C**

FUNDING SOURCES	SPECIFICATION TYPE	METHOD OF COMPLETION
F= Fire Suppression ESR = Emergency Stabilization & Rehab. OP/O = Agency Operating Fund EWP = Emergency Watershed Program	ES = Emergency Stabilization R = Rehabilitation FS = Fire Suppression	P = Agency Personnel Services C = Contract EFC = Emergency Fire Contract FC = Crew Labor Assigned to Fire

SOURCE OF COST ESTIMATES

Put Letter (P,M,T,C, or F) Next to Appropriate Cost Estimate Source (1-5) Below	
1. Estimate obtained from 2-3 independent contractual sources.	
2. Documented cost figures from similar project work obtained from local agency sources.	C
3. Estimate supported by cost guides from independent sources or other federal agencies.	
4. Estimates based upon government wage rates and material cost.	
5. No cost estimate required – cost charged to Fire Suppression Account (not tracked in plan)	

P = Personnel Services M = Materials/Supplies T = Travel C = Contract F = Suppression

I. RELEVANT DETAILS, MAPS, AND DOCUMENTATION INCLUDED IN THIS REPORT

List Relevant Documentation and Cross-References within ESR Plan
See Wildlife Assessment Appendix I

U.S. FISH & WILDLIFE SERVICE
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PART F - SPECIFICATION

SPECIFICATION TITLE:	TRAP & RELOCATE RIPARIAN BRUSH RABBITS	**JURSIDICTIONS:**	FWS
PART E: LINE ITEM:	W-1 TRAP & RELOCATE RABBITS	**FISCAL YEAR:**	2004 -2005
ESR REFERENCE #:	6.3.8 Threatened & Endangered Species Monitoring	**SPECIFICATION TYPE:**	ES

WORK TO BE DONE

A. Provide a Brief General Description of Treatment

Hire a crew of biologists to capture riparian brush rabbits within the burned area to better assess their health and condition following the fire and loss of significant portions of the cover and forage within their home ranges. Relocate rabbits to a new release pen and location on the refuge outside the burned area if inspection of capture animals indicates that the animals are in poor condition due to the fire or telemetry monitoring (see Telemetry Monitoring Specification) indicates that there is significant increase in mortality due to increased predation. This specification includes costs for construction of the new release site.

B. Describe Specific Treatment Location or General Description of Suitable Sites for Treatment

Trapping will occur within an approximately 400 acre area of the burn known to be occupied by the rabbits.

C. Provide and Number Detailed Design/Construction Specifications

1. Purchase and install live traps in accordance with established trapping specifications already established for the riparian brush rabbit.
2. Construct new release pen in suitable habitat on the refuge outside the burned area for use if health inspections and telemetry monitoring indicates significant increases of rabbit mortality is or will occur.

D. Describe Purpose of Treatment Specification – What Resource will be Protected

The reintroduced Federal endangered riparian brush rabbit population within the burned area is now at significantly greater risk to mortality due to lost cover and forage as a result of the Pelican Fire. This specification provides for immediate relocation of rabbits should health inspections and telemetry monitoring determine that mortality of the rabbits has will significant increase due to post fire conditions.

E. Describe Treatment Effectiveness Monitoring

If inspects of trapped animals and telemetry monitoring indicates that rabbits are in healthy condition and mortality has not significantly increased relocation of rabbits will be curtailed.

LABOR, EQUIPMENT, MATERIALS, AND OTHER COST:

PERSONNEL SERVICES (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item **Do not include contract personnel costs here (see contractor services below).**	**COST/ITEM**
TOTAL PERSONNEL SERVICE COST	
EQUIPMENT PURCHASE, LEASE, OR RENTAL (Item @ Cost/Hours or Cost/Day or # Days X # Fiscal Years = Cost/Item) Note: Purchase requires written justification that demonstrates cost/item benefits over lease or rental.	**COST/ITEM**
TOTAL EQUIPMENT PURCHASE, LEASE, OR RENTAL COST	
MATERIAL AND SUPPLIES (Item @ Cost/Each X Quantity X # Fiscal Years = Cost/Item)	**COST/ITEM**
Live traps- @ $67.00 each X 65 traps	**$4,355**
Release pen @ $2600 each X 1 release pen	**$2,600**
TOTAL MATERIAL AND SUPPLY COST	**$6,955**

TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X # Fiscal Years = Cost/Item	**COST/ITEM**
TOTAL TRAVEL COST	
CONTRACT COST (Labor or Equipment @ Cost/Hour X # Hours X # Fiscal Years = Cost/Item)	**COST /ITEM**
Contract to trap, inspect health, and relocate riparian brush rabbits	**$85,850**
TOTAL CONTRACT COST	**$85,850**

SPECIFICATION COST SUMMARY

FISCAL YEAR	UNIT	UNIT COST	# OF UNITS	COST	FUNDING SOURCE	METHOD
2004	**Rabbits**	**$**	**-**	**$82,805**	**ES**	**C**
2005	**Rabbits**	**$**	**-**	**$10,000**	**-**	**-**
2006	**-**	**-**	**-**	**-**	**-**	**-**
TOTAL	**Rabbits**	**$**	**-**	**$92,805**	**ES**	**C**

FUNDING SOURCES	**SPECIFICATION TYPE**	**METHOD OF COMPLETION**
F= Fire Suppression	ES = Emergency Stabilization	P = Agency Personnel Services
ESR = Emergency Stabilization & Rehab.	R = Rehabilitation	C = Contract
OP/O = Agency Operating Fund	FS = Fire Suppression	EFC = Emergency Fire Contract
EWP = Emergency Watershed Program		FC = Crew Labor Assigned to Fire

SOURCE OF COST ESTIMATES

Put Letter (P,M,T,C, or F) Next to Appropriate Cost Estimate Source (1-5) Below	
1. Estimate obtained from 2-3 independent contractual sources.	
2. Documented cost figures from similar project work obtained from local agency sources.	C
3. Estimate supported by cost guides from independent sources or other federal agencies.	
4. Estimates based upon government wage rates and material cost.	
5. No cost estimate required – cost charged to Fire Suppression Account (not tracked in plan)	

P = Personnel Services M = Materials/Supplies T = Travel C = Contract F = Suppression

II. RELEVANT DETAILS, MAPS, AND DOCUMENTATION INCLUDED IN THIS REPORT

List Relevant Documentation and Cross-References within ESR Plan
See Wildlife Assessment Appendix I.

INTERAGENCY
BURNED AREA EMERGENCY STABILIZATION PLAN

PART F - SPECIFICATION

SPECIFICATION TITLE:	Vegetative Monitoring	**JURSIDICTIONS:**	FWS-SJRNWR
PART E: LINE ITEM:	Vegetation Recovery, Noxious Weed & Seeding Success Monitoring	**FISCAL YEAR:**	2004, 2005
ESR REFERENCE #:	**6.3.2.3**	**SPECIFICATION TYPE:**	ES

WORK TO BE DONE

A. General Description:

Monitor brush rabbit habitat recovery within the burned area to determine if management objectives are being met and to identify any future planting or seeding needs. Plants to be monitored include California blackberry, California rose, and associated species.

Monitor for new occurrences of undesirable plant species (noxious and exotic), within the burned area. Monitoring will occur in un-infested areas having a high potential for weed invasion. Monitor for success of noxious weed treatments.

Monitor for establishment of seeded native grasses the first year following treatment to determine if revegetation efforts are meeting management goals.

B. Location (Suitable) Sites:

Monitoring for recovery of shrub cover in brush rabbit habitat will primarily occur in blackberry-rose communities that have a moderate to high mortality (shrub cover loss). See Mortality Map.

Monitoring for noxious weeds will occur in areas with potential for weed invasion and in areas that are treated for noxious weeds (see Noxious Weed Map).

Monitoring for seeding success will occur where native grasses are seeded to compete with noxious weeds, primarily in the areas called Chisholm Island and the Peninsula.

C. Design/Construction Specifications:

1. Establish 8 to 10 permanent transects and 3 to 5 trend photo plots to study one or more of the following: cover, height, density, frequency, and visual obstruction for individual plant species or groups of species. Line intercept can be used to measure shrub canopy cover and quadrat-sampling methods can be used to measure frequency. The method to be chosen will be determined by local Fish and Wildlife staff and Endangered Species Recovery Program researchers. Collect data to describe the vegetation recovery from the fire. Compare reestablishment within burn area to a control area outside of burn.
2. Prepare annual reports and a final report analyzing the data for burned and unburned sites to determine shrub cover, shrub height, and forage availability.
3. Conduct short-term monitoring on known noxious weed occurrences and in areas of potential spread within burned area to determine spread of noxious and invasive plant species. Monitoring protocols will be determined by San Joaquin River national Wildlife refuge staff.
4. Locate, map, and document (using photography, topographic maps, and Global Positioning System--GPS—technology), new weed occurrences within burned area.
5. Initiate Agency approved control measures on new weed occurrences where monitoring demonstrates the establishment or expansion of known weed populations.
6. Complete supplemental funding request for ESR funding (or cost-share through a Weed Management Area), for noxious weed control of new weed populations within the burned area.
7. For native grass seeding, monitoring transects should be established to determine a minimum seeding establishment of 9 to 15 plants per square foot, species composition, estimated cover, plant height and vigor, and to estimate effective root cover area due to grasses and other plant material.

D. Purpose of Treatment Specification:

The purpose of the treatments is to determine if the plant associations that are critical for brush rabbit cover, forage, and breeding recover within sufficient time (within 2 years), to maintain the reproductive viability of the rabbits. The treatment is intended to determine if other measures, as decided by SJTNWR staff, are required.

The purpose of the noxious weed and undesirable plant monitoring is to detect new noxious weed occurrences in the burned

area and to monitor known weed densities. This monitoring will also determine the effectiveness of treatments. Monitoring will determine native grass seeding success and effectiveness; the degree of competition with undesirable plant species will also be determined.
E. Treatment Effectiveness Monitoring
As described in this specification. This treatment will produce a report on treatment effectiveness.

LABOR, EQUIPMENT, MATERIALS, AND OTHER COST:

PERSONNEL SERVICES (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item **Do not include contract personnel costs here (see contractor services below).**	**COST/ITEM**
USFWS – GS-11 Biologist @ $25.80/hour x 8 hours/day x 20 days x 2 years	**$8,256**
USFWS – GS-7 Range Technician @ $15.85/hour x 10 hours/day x 35 days x 2 years	**$11,095**
USFWS – GS-5 Biological Technician @ $12.79/day x 10 hours/day x 35 days x 2 years	**$8,953**
TOTAL PERSONNEL SERVICE COST	**$28,304**
EQUIPMENT PURCHASE, LEASE, OR RENTAL (Item @ Cost/Hours or Cost/Day or # Days X # Fiscal Years = Cost/Item) Note: Purchase requires written justification that demonstrates cost/item benefits over lease or rental.	**COST/ITEM**
1 GPS unit @ $4,000	**$4,000**
1 Digital camera @ $400.00	**$400**
TOTAL EQUIPMENT PURCHASE, LEASE, OR RENTAL COST	**$4,400**
MATERIAL AND SUPPLIES (Item @ Cost/Each X Quantity X # Fiscal Years = Cost/Item)	**COST/ITEM**
Field supplies (rebar, fence posts, measuring tape, monitoring frames, flagging, etc) and office supplies (paper, computer discs, pencils, etc)	**$2,000**
TOTAL MATERIAL AND SUPPLY COST	**$2,000**
TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X # Fiscal Years = Cost/Item	**COST/ITEM**
Vehicle @ $14.95/day x 55 days x 2 years	**$16,445**
TOTAL TRAVEL COST	**$16,445**
CONTRACT COST (Labor or Equipment @ Cost/Hour X # Hours X # Fiscal Years = Cost/Item)	**COST /ITEM**
TOTAL CONTRACT COST	

SPECIFICATION COST SUMMARY

FISCAL YEAR	UNIT	UNIT COST	# OF UNITS	COST	FUNDING SOURCE	METHOD
2004	Surveys	$731.00	35	$25,575	ESR	P
2005	Surveys	$731.00	35	$25,575	ESR	P
2006						
TOTAL	Surveys	**$731.00**	**35**	**$51,150**	**ESR**	P

FUNDING SOURCES
F= Fire Suppression
ESR = Emergency Stabilization & Rehab.
OP/O = Agency Operating Fund
EWP = Emergency Watershed Program

SPECIFICATION TYPE
ES = Emergency Stabilization
R = Rehabilitation
FS = Fire Suppression

METHOD OF COMPLETION
P = Agency Personnel Services
C = Contract
EFC = Emergency Fire Contract
FC = Crew Labor Assigned to Fire

SOURCE OF COST ESTIMATES

Put Letter (P,M,T,C, or F) Next to Appropriate Cost Estimate Source (1-5) Below	
1. Estimate obtained from 2-3 independent contractual sources.	
2. Documented cost figures from similar project work obtained from local agency sources.	P, M, T
3. Estimate supported by cost guides from independent sources or other federal agencies.	
4. Estimates based upon government wage rates and material cost.	
5. No cost estimate required – cost charged to Fire Suppression Account (not tracked in plan)	

P = Personnel Services **M = Materials/Supplies** **T = Travel** **C = Contract** **F = Suppression**

RELEVANT DETAILS, MAPS, AND DOCUMENTATION INCLUDED IN THIS REPORT

List Relevant Documentation and Cross-References within ESR Plan
Appendix I – Vegetation Assessment; Appendix III – Vegetation Mortality Map, Noxious Weed Map

INTERAGENCY
BURNED AREA EMERGENCY STABILIZATION PLAN

PART F - SPECIFICATION

SPECIFICATION TITLE:	Noxious Weed Control	**JURSIDICTIONS:**	FWS-SJRNWR
PART E: LINE ITEM:	Noxious Weed Control	**FISCAL YEAR:**	2004, 2005
ESR REFERENCE #:	6.3.2.3 Revegetation	**SPECIFICATION TYPE:**	ES

WORK TO BE DONE

A. General Description:

Utilize integrated pest management practices (herbicides, biological mechanical, and cultural control methods), as appropriate to prevent the spread and establishment of noxious weeds and undesirable exotic species known to exist within the fire perimeter of the Pelican Fire and as defined by monitoring.

B. Location (Suitable) Sites:

Control all weeds as defined on the Noxious Weed Map (Appendix III), as "Existing"locations. There are approximately 395 acres of known weed locations. There are approximately 405 acres within the burned area that have a high potential for noxious weed encroachment.

C. Design/Construction Specifications:

1. Control noxious/non-native weeds within the burn area and as identified by monitoring. Because the majority of the known infestation sites contain perennial pepperweed, the recommended herbicide is chlorsulfuron (brand name Telar®), at a rate of 1 ounce per acre, applied in the spring. The SJRNWR staff should consult with the Merced County Agriculture Commissioner or other knowledgeable persons on the local Weed Management Area about spraying where native grasses have been seeded. Timing or year of application may need to be adjusted to ensure seeding success of natives grasses where herbicides are used.
2. Follow-up control in the fall or subsequent years (a request for Emergency Rehabilitation funding may be necessary), on treated sites.
3. Locate, map, and document (using photography, topographic maps, and Global Positioning System--GPS—technology), new weed occurrences within burned area. Document percent control or kill of noxious weeds.
4. Initiate Agency approved control measures on new weed occurrences where monitoring demonstrates the establishment or expansion of known weed populations.
5. Complete supplemental funding request for ESR funding (or cost-share through a Weed Management Area), for noxious weed control of new weed populations within the burned area.

D. Purpose of Treatment Specification:

Control or contain existing noxious weed occurrences to prevent further spread onto uninfested sites within the burn area. Protect the ecological integrity and site productivity of riparian brush rabbit habitat and plant associations on lands administered by the SJRNWR. Prevent spread of noxious weeds onto uninfested private lands outside the refuge.

E. Treatment Effectiveness Monitoring

Spot checking of noxious weed sites to ensure control methods are meeting management objectives. A staff person from the SJRNWR will visit sites controlled every other week for two to three visits, beginning two weeks after initial treatment; this is especially important for weed populations that are sprayed to ensure effectiveness of herbicide application. If both spring and summer/fall applications are used then visits will occur during both these times.

LABOR, EQUIPMENT, MATERIALS, AND OTHER COST:

PERSONNEL SERVICES (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item **Do not include contract personnel costs here (see contractor services below).**	**COST/ITEM**
USFWS – GS-11 Wildlife Biologist @ $25.80/hour x 8 hours/day x 10 days x 2 years	**$4,128**
TOTAL PERSONNEL SERVICE COST	**$4,128**
EQUIPMENT PURCHASE, LEASE, OR RENTAL (Item @ Cost/Hours or Cost/Day or # Days X # Fiscal Years = Cost/Item) Note: Purchase requires written justification that demonstrates cost/item benefits over lease or rental.	**COST/ITEM**
1 GPS unit @ $4,000	**$4,000**
TOTAL EQUIPMENT PURCHASE, LEASE, OR RENTAL COST	**$4,000**

MATERIAL AND SUPPLIES (Item @ Cost/Each X Quantity X # Fiscal Years = Cost/Item)	**COST/ITEM**
TOTAL MATERIAL AND SUPPLY COST	
TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X # Fiscal Years = Cost/Item	**COST/ITEM**
Vehicle @ $14.95/day x 10 days x 2 years	**$300**
TOTAL TRAVEL COST	**$300**
CONTRACT COST (Labor or Equipment @ Cost/Hour X # Hours X # Fiscal Years = Cost/Item)	**COST/ITEM**
Control weeds with herbicides on 395 acres: aerial – 200 ac @ $420.00/ac x 200 ac	**$84,000**
Control weeds with herbicides on 395 acres: ground application, rough terrain – 80 acres @ $218.00/ac x 80 ac	**$17,440**
Control weeds with herbicides on 395 acres: ground application, rangeland – 115 acres @ $75.00/ac x 115 ac	**$8,625**
Follow up weed treatments, ground applications, ATV @ $100/ac x 100 ac	**$10,000**
TOTAL CONTRACT COST	**$120,065**

SPECIFICATION COST SUMMARY

FISCAL YEAR	UNIT	UNIT COST	# OF UNITS	COST	FUNDING SOURCE	METHOD
2004	Acres	$325.00	395	$128,493	ES	P, C
2005						
2006						
TOTAL		**$325.00**	**395**	**$128,493**	**ES**	P, C

FUNDING SOURCES
F= Fire Suppression
ESR = Emergency Stabilization & Rehab.
OP/O = Agency Operating Fund
EWP = Emergency Watershed Program

SPECIFICATION TYPE
ES = Emergency Stabilization
R = Rehabilitation
FS = Fire Suppression

METHOD OF COMPLETION
P = Agency Personnel Services
C = Contract
EFC = Emergency Fire Contract
FC = Crew Labor Assigned to Fire

SOURCE OF COST ESTIMATES

Put Letter (P,M,T,C, or F) Next to Appropriate Cost Estimate Source (1-5) Below	
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2. Documented cost figures from similar project work obtained from local agency sources.	P, M, T, C
3. Estimate supported by cost guides from independent sources or other federal agencies.	
4. Estimates based upon government wage rates and material cost.	
5. No cost estimate required – cost charged to Fire Suppression Account (not tracked in plan)	

P = Personnel Services M = Materials/Supplies T = Travel C = Contract F = Suppression

RELEVANT DETAILS, MAPS, AND DOCUMENTATION INCLUDED IN THIS REPORT

List Relevant Documentation and Cross-References within ESR Plan
Appendix I – Vegetation Assessment; Appendix III – Vegetation Mortality Map, Noxious Weed Map

INTERAGENCY
BURNED AREA EMERGENCY STABILIZATION PLAN

PART F - SPECIFICATION

SPECIFICATION TITLE:	Seeding	**JURSIDICTIONS:**	FWS-SJRNWR
PART E: LINE ITEM:	Native Grass Seeding	**FISCAL YEAR:**	2004, 2005
ESR REFERENCE #:	6.3.2.3 Revegetation	**SPECIFICATION TYPE:**	ES

WORK TO BE DONE

A. General Description:

Reseeding will be ground application by the SJRNWR Force Account crew. The need for reseeding, seed selection, and application rates were developed in consultation with the local staff from the FWS. The reseeding will be conducted in conjunction with noxious weed control and is intended to reduce encroachment by exotic annual grasses and noxious weeds (primarily perennial pepperweed). Approximately 500 acres will be reseeded.

B. Location (Suitable) Sites:

The areas to be reseeded are within the areas of existing noxious weeds in the Christman Island and the Peninsula areas. The reseeding will occur mostly in the area of low vegetation mortality but will be conducted along the edges of the sandbar willow-California blackberry-California rose plant associations in foraging habitat of the riparian brush rabbit. The area mostly coincides with the existing noxious weed locations. See Appendix III, Noxious Weed Map.

C. Design/Construction Specifications:

1. The species selected for reseeding the burn area will be creeping wildrye, *Leymus triticoides*. The source is of local origin. Seed should be tested for purity, germination, inert matter, and for noxious and other weed species. Seed will have been tested within 120 days of delivery to the SJRNWR. Before accepting delivery of shipment the seed contractor must provide written evidence (seed label and letter), to the Implementation Contracting Officer that the seed conforms to the purity and germination requirements in the specification and contract. Test methods specified in *Rules for Testing Seeds, Proceedings of the Association of Official Seed Analyst* would be acceptable for determining the germination rate.
2. Seed will be certified noxious weed free. No substitutes will be accepted.
3. Seed will be applied by drilling or broadcast methods, or a combination. Rates for the different application methods will be as follows: Drilling – 8 lbs Pure Live Seed (PLS)/ acre; broadcast – 10-15 lbs PLS/ac. If the discs on the drill can be set to go no lower than 3 inches on sites heavily infested with perennial pepperweed, then drilling would be the preferred method. On heavily infested perennial pepperweed.
4. Seeding will be conducted by the SJRNWR Force Account crew.
5. Delivery and storage: Seed will be delivered to a designated location as determined by the local SJRNWR staff. Seed should be applied as soon as possible after delivery. If immediate application is not possible the seed should be properly stored, preferably near the project site. Stored seed should be protected from moisture, rodents and theft and must be stored in a dry environment.
6. Application timing and completion date: Application timing will correspond to local conditions and predicted success. For fall application, seed will be applied after the first fall rains and after the fall weed treatment. If seed can not be applied in the fall of 2004, then a supplemental request will be submitted to request seeding be implemented in the fall of 2005. For spring applications, seed will be applied before any seasonal drought and be timed with spring noxious weed treatments.

D. Purpose of Treatment Specification:

The purpose of the treatment is to help prevent noxious weed encroachment and improve wildlife habitat. The native grass will help reduce the extent of the exotic annual grasses found within the burn area while improving the sandbar willow/creeping wildrye and valley oak-box elder/creeping wildrye-Barbary's sedge associations.

E. Treatment Effectiveness Monitoring

See Vegetation Monitoring Specification.

III. LABOR, EQUIPMENT, MATERIALS, AND OTHER COST:

PERSONNEL SERVICES (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item **Do not include contract personnel costs here (see contractor services below).**	**COST/ITEM**
USFWS – GS-11 Biologist @ $25.80/hour x 8 hours/day x 5 days x 1 years	**$1,032**
TOTAL PERSONNEL SERVICE COST	**$1,032**
EQUIPMENT PURCHASE, LEASE, OR RENTAL (Item @ Cost/Hours or Cost/Day or # Days X # Fiscal Years = Cost/Item) Note: Purchase requires written justification that demonstrates cost/item benefits over lease or rental.	**COST/ITEM**
TOTAL EQUIPMENT PURCHASE, LEASE, OR RENTAL COST	
MATERIAL AND SUPPLIES (Item @ Cost/Each X Quantity X # Fiscal Years = Cost/Item)	**COST/ITEM**
Creeping wildrye seed @ $45.00/lb PLS x 4000 lbs x 1 year	**180,000**
TOTAL MATERIAL AND SUPPLY COST	**180,000**
TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X # Fiscal Years = Cost/Item	**COST/ITEM**
Vehicle @ $14.95/day x 5 days x 1 years	**$75**
TOTAL TRAVEL COST	**$75**
CONTRACT COST (Labor or Equipment @ Cost/Hour X # Hours X # Fiscal Years = Cost/Item)	**COST /ITEM**
Drilling seed, 2 drills ($300/hour x 8 hours/day x 6 days)	**$14,400**
TOTAL CONTRACT COST	**$14,400**

SPECIFICATION COST SUMMARY

FISCAL YEAR	UNIT	UNIT COST	# OF UNITS	COST	FUNDING SOURCE	METHOD
2004						
2005	Acres	$391	500	$195,507	ES	P, C
2006						
TOTAL	Acres	**$391**	**500**	**$195,507**	**ES**	P, C

FUNDING SOURCES
F= Fire Suppression
ESR = Emergency Stabilization & Rehab.
OP/O = Agency Operating Fund
EWP = Emergency Watershed Program

SPECIFICATION TYPE
ES = Emergency Stabilization
R = Rehabilitation
FS = Fire Suppression

METHOD OF COMPLETION
P = Agency Personnel Services
C = Contract
EFC = Emergency Fire Contract
FC = Crew Labor Assigned to Fire

SOURCE OF COST ESTIMATES

Put Letter (P,M,T,C, or F) Next to Appropriate Cost Estimate Source (1-5) Below	
1. Estimate obtained from 2-3 independent contractual sources.	
2. Documented cost figures from similar project work obtained from local agency sources.	P, M, C, T
3. Estimate supported by cost guides from independent sources or other federal agencies.	
4. Estimates based upon government wage rates and material cost.	
5. No cost estimate required – cost charged to Fire Suppression Account (not tracked in plan)	

P = Personnel Services M = Materials/Supplies T = Travel C = Contract F = Suppression

IV. RELEVANT DETAILS, MAPS, AND DOCUMENTATION INCLUDED IN THIS REPORT

List Relevant Documentation and Cross-References within ESR Plan
Appendix I – Vegetation Assessment; Appendix III – Pelican Fire Perimeter Map.

INTERAGENCY
BURNED AREA EMERGENCY STABILIZATION PLAN

PART F - SPECIFICATION

SPECIFICATION TITLE:	Replace Refuge Boundary and Closed Area Signs	**JURSIDICTIONS:**	FWS
PART E: LINE ITEM:	I-2 Replace Refuge Boundary & Entrance Signs	**FISCAL YEAR:**	2004
ESR REFERENCE #:	6.3.3.1 Minor Facilities	**SPECIFICATION TYPE:**	ES

WORK TO BE DONE

A. Provide a Brief General Description of Treatment
The portions of San Joaquin River National Wildlife Refuge that burned in the Pelican Fire are closed to the public for the protection of the endangered species. Standard refuge closed area signs are essential for maintaining this closure. This specification would replace signs that burned during the Pelican Fire.
B. Describe Specific Treatment Location or General Description of Suitable Sites for Treatment
See Treatment Maps, Appendix III.
C. Provide and Number Detailed Design/Construction Specifications
1. Purchase replacements signs.
D. Describe Purpose of Treatment Specification – What Resource will be Protected
Signs are required to maintain closure of San Joaquin River NWR for the protection of endangered species.
E. Describe Treatment Effectiveness Monitoring
N/A

LABOR, EQUIPMENT, MATERIALS, AND OTHER COST:

PERSONNEL SERVICES (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item **Do not include contract personnel costs here (see contractor services below).**	**COST/ITEM**
	N/A
TOTAL PERSONNEL SERVICE COST	N/A
EQUIPMENT PURCHASE, LEASE, OR RENTAL (Item @ Cost/Hours or Cost/Day or # Days X # Fiscal Years = Cost/Item) Note: Purchase requires written justification that demonstrates cost/item benefits over lease or rental.	**COST/ITEM**
	N/A
TOTAL EQUIPMENT PURCHASE, LEASE, OR RENTAL COST	N/A
MATERIAL AND SUPPLIES (Item @ Cost/Each X Quantity X # Fiscal Years = Cost/Item)	**COST/ITEM**
Sign @ $ 35 / sign X 25 of Signs	**$875**
TOTAL MATERIAL AND SUPPLY COST	**$875**
TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X # Fiscal Years = Cost/Item	**COST/ITEM**
	N/A
TOTAL TRAVEL COST	N/A
CONTRACT COST (Labor or Equipment @ Cost/Hour X # Hours X # Fiscal Years = Cost/Item)	**COST /ITEM**
	N/A
TOTAL CONTRACT COST	N/A

SPECIFICATION COST SUMMARY

FISCAL YEAR	UNIT	UNIT COST	# OF UNITS	COST	FUNDING SOURCE	METHOD
2003	Signs	$35	25	$875	ES	P
2004	-	-	-	-	-	-
2005	-	-	-	-	-	-
TOTAL	Signs	$35	25	$875	ES	P

FUNDING SOURCES	SPECIFICATION TYPE	METHOD OF COMPLETION
F= Fire Suppression	ES = Emergency Stabilization	P = Agency Personnel Services
ESR = Emergency Stabilization & Rehab.	R = Rehabilitation	C = Contract
OP/O = Agency Operating Fund	FS = Fire Suppression	EFC = Emergency Fire Contract
EWP = Emergency Watershed Program		FC = Crew Labor Assigned to Fire

SOURCE OF COST ESTIMATES

Put Letter (P,M,T,C, or F) Next to Appropriate Cost Estimate Source (1-5) Below	
1. Estimate obtained from 2-3 independent contractual sources.	
2. Documented cost figures from similar project work obtained from local agency sources.	M/P
3. Estimate supported by cost guides from independent sources or other federal agencies.	
4. Estimates based upon government wage rates and material cost.	
5. No cost estimate required – cost charged to Fire Suppression Account (not tracked in plan)	

P = Personnel Services M = Materials/Supplies T = Travel C = Contract F = Suppression

RELEVANT DETAILS, MAPS, AND DOCUMENTATION INCLUDED IN THIS REPORT

List Relevant Documentation and Cross-References within ES Plan

INTERAGENCY
BURNED AREA EMERGENCY STABILIZATION PLAN

PART F - SPECIFICATION

SPECIFICATION TITLE:	Fencing	**JURSIDICTIONS:**	FWS-SJRNWR
PART E: LINE ITEM:	Boundary Fence Reconstruction	**FISCAL YEAR:**	2004, 2005
ESR REFERENCE #:	6.3.3.1 Minor Facilities	**SPECIFICATION TYPE:**	ES

WORK TO BE DONE

A. General Description:
Re-construct 2,740 feet of barbed wire fence which served as a boundary fence on the east side of the fire. The posts and braces were wood and were destroyed by the fire.
B. Location (Suitable) Sites:
The fence to be rebuilt is about 1/3 mile south of The Old Fisherman's Club. It will begin at a gate at the Lyons property, heads SE. then south to the San Joaquin River.
C. Design/Construction Specifications:
Fence will be 4 strand barbed wire, bottom wire smooth (for wildlife access), with wooden end panels and stress panels. Two gates will be re-built. Design specifications will be to Agency standards.
D. Purpose of Treatment Specification:
The purpose of the treatments is to prevent livestock and vehicles access to the Refuge. The fence will serve as the boundary for the San Joaquin River National Wildlife Refuge.
E. Treatment Effectiveness Monitoring
An agency Project Inspector will ensure the fence is constructed to standards established by the SJRNWR.

LABOR, EQUIPMENT, MATERIALS, AND OTHER COST:

PERSONNEL SERVICES (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item **Do not include contract personnel costs here (see contractor services below).**	**COST/ITEM**
USFWS – GS-11 Biologist/Project Inspector @ $25.80/hour x 8 hours/day x 5 days x 1 years	**$1,032.00**
TOTAL PERSONNEL SERVICE COST	**$1,032.00**
EQUIPMENT PURCHASE, LEASE, OR RENTAL (Item @ Cost/Hours or Cost/Day or # Days X # Fiscal Years = Cost/Item) Note: Purchase requires written justification that demonstrates cost/item benefits over lease or rental.	**COST/ITEM**
TOTAL EQUIPMENT PURCHASE, LEASE, OR RENTAL COST	
MATERIAL AND SUPPLIES (Item @ Cost/Each X Quantity X # Fiscal Years = Cost/Item)	**COST/ITEM**
T posts-metal, treated wooden posts, gate stays, tree scabs, wire stays, barbed wire, smooth wire, clips	**$1,249**
TOTAL MATERIAL AND SUPPLY COST	**$1,249**
TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X # Fiscal Years = Cost/Item	**COST/ITEM**
Vehicle @ $14.95/day x 5 days x 1 years	**$75**
TOTAL TRAVEL COST	**$75**
CONTRACT COST (Labor or Equipment @ Cost/Hour X # Hours X # Fiscal Years = Cost/Item)	**COST /ITEM**
Fence Construction, Labor only, total job	**$7,784**
TOTAL CONTRACT COST	**$7,784**

SPECIFICATION COST SUMMARY

FISCAL YEAR	UNIT	UNIT COST	# OF UNITS	COST	FUNDING SOURCE	METHOD
2004	Feet	$3.70	2,171	$10,140	ES	P, C
2005						
2006						
TOTAL	Feet	**$3.70**	**2,171**	**$10,140**	**ES**	P, C

FUNDING SOURCES
F= Fire Suppression
ESR = Emergency Stabilization & Rehab.
OP/O = Agency Operating Fund
EWP = Emergency Watershed Program

SPECIFICATION TYPE
ES = Emergency Stabilization
R = Rehabilitation
FS = Fire Suppression

METHOD OF COMPLETION
P = Agency Personnel Services
C = Contract
EFC = Emergency Fire Contract
FC = Crew Labor Assigned to Fire

SOURCE OF COST ESTIMATES

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3. Estimate supported by cost guides from independent sources or other federal agencies.	
4. Estimates based upon government wage rates and material cost.	
5. No cost estimate required – cost charged to Fire Suppression Account (not tracked in plan)	

P = Personnel Services M = Materials/Supplies T = Travel C = Contract F = Suppression

RELEVANT DETAILS, MAPS, AND DOCUMENTATION INCLUDED IN THIS REPORT

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Appendix I – Vegetation Assessment; Appendix III – Pelican Fire Perimeter Map.

U.S. FISH & WILDLIFE SERVICE
BURNED AREA EMERGENCY STABILIZATION PLAN

PART F - SPECIFICATION

SPECIFICATION TITLE:	IMPLEMENTATION LEADER	**JURSIDICTIONS:**	FWS
PART E: LINE ITEM:	0-1 IMPLEMENTATION LEADER	**FISCAL YEAR:**	2004 -2005
ESR REFERENCE #:	8.5 Project Management	**SPECIFICATION TYPE:**	ES

WORK TO BE DONE

A. Provide a Brief General Description of Treatment
Hire GS-9 Implementation leader for 12 months to develop contract specifications, monitor contractor performance, and complete project accomplishments.
B. Describe Specific Treatment Location or General Description of Suitable Sites for Treatment
See other treatments.
C. Provide and Number Detailed Design/Construction Specifications
1.
D. Describe Purpose of Treatment Specification – What Resource will be Protected
The implementation leader will develop contract specifications, coordinate contractor access to remote closed refuge property, inspect contractor work, and report accomplishments.
E. Describe Treatment Effectiveness Monitoring
N/A

LABOR, EQUIPMENT, MATERIALS, AND OTHER COST:

PERSONNEL SERVICES (Grade @ Cost/Hours X # Hours X # Fiscal Years = Cost/Item **Do not include contract personnel costs here (see contractor services below).**	**COST/ITEM**
GS-11 @ $1,940 / Pay Period 26 pay periods =	$50,440
TOTAL PERSONNEL SERVICE COST	**$50,440**
EQUIPMENT PURCHASE, LEASE, OR RENTAL (Item @ Cost/Hours or Cost/Day or # Days X # Fiscal Years = Cost/Item) Note: Purchase requires written justification that demonstrates cost/item benefits over lease or rental.	**COST/ITEM**
Misc. equipment rental @ $3,000	$3,000
TOTAL EQUIPMENT PURCHASE, LEASE, OR RENTAL COST	**$3,000**
MATERIAL AND SUPPLIES (Item @ Cost/Each X Quantity X # Fiscal Years = Cost/Item)	**COST/ITEM**
Misc. materials and supplies @ $3,000	$3,000
TOTAL MATERIAL AND SUPPLY COST	**$3,000**
TRAVEL COST (Personnel or Equipment @ Rate X Round Trips X # Fiscal Years = Cost/Item	**COST/ITEM**
	N/A
TOTAL TRAVEL COST	**N/A**
CONTRACT COST (Labor or Equipment @ Cost/Hour X # Hours X # Fiscal Years = Cost/Item)	**COST /ITEM**
	N/A
TOTAL CONTRACT COST	**N/A**

SPECIFICATION COST SUMMARY

FISCAL YEAR	UNIT	UNIT COST	# OF UNITS	COST	FUNDING SOURCE	METHOD
2004	Pay Period	$2,170	4	$8,680	ES	C
2005	Pay Period	$2,170	22	$47,760	-	-
2006	-	-	-	-	-	-
TOTAL	Pay Period	$2,170	26	$56,440	ES	C

FUNDING SOURCES	SPECIFICATION TYPE	METHOD OF COMPLETION
F= Fire Suppression ESR = Emergency Stabilization & Rehab. OP/O = Agency Operating Fund EWP = Emergency Watershed Program	ES = Emergency Stabilization R = Rehabilitation FS = Fire Suppression	P = Agency Personnel Services C = Contract EFC = Emergency Fire Contract FC = Crew Labor Assigned to Fire

SOURCE OF COST ESTIMATES

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2. Documented cost figures from similar project work obtained from local agency sources.	
3. Estimate supported by cost guides from independent sources or other federal agencies.	
4. Estimates based upon government wage rates and material cost.	P
5. No cost estimate required – cost charged to Fire Suppression Account (not tracked in plan)	

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RELEVANT DETAILS, MAPS, AND DOCUMENTATION INCLUDED IN THIS REPORT

List Relevant Documentation and Cross-References within ESR Plan

INTERAGENCY
BURNED AREA EMERGENCY STABILIZATION PLAN

PELICAN FIRE

CULTURAL RESOURCE ASSESSMENT

I. OBJECTIVES

- Assess damages to known cultural resources as the result of fire behavior
- Assess damages to known cultural resources as the result of fire suppression activities
- Assess potential risks to known cultural resources as the result from the effects of fire (e.g. erosion, flooding, and exposure to looting and/or vandalism.
- Assess potential risks to known cultural resources as the result of emergency stabilization activities.

II. ISSUES

Are cultural resources known to exist within the fire perimeter? If so, have these resources been subject to direct or indirect effects of fire? What are the requirements for emergency stabilization and/or protection? Do proposed emergency stabilization measures for other resources pose a risk to known cultural resources? If so, what measures may be employed to mitigate adverse effects to those resources?

III. OBSERVATIONS

A. Cultural Overview

As presented in the volume, California Archaeology (Moratto, 1984), the development of a sequence for the culture history of the Northern San Joaquin Valley begins with studies in the 1940's and 1950's by University of California, Berkeley archaeologists testing the research potential of the area through small-scale excavations of midden deposits. During the 1960's archaeological activity increased in the area as the result of numerous reservoir projects. Salvage excavations conducted in conjunction with the construction and subsequent filling of Los Banos, Little Panoche, and San Luis Reservoirs ultimately led to the definition of a series of four cultural complexes that describe the chronological sequence for the prehistory of the Northern San Joaquin Valley. The *Positas Complex* (ca. 3300-2600 B.C.) is distinguished primarily on the basis of ground and shaped stone implements. These tools include: small shaped mortars in association with short cylindrical pestles, portable millingstones, and perforated flat cobbles. Also indicative of this complex is the presence of spire-lopped *Olivella* beads. The *Pacheco Complex* (ca. 2600 B.C.-A.D. 300) is replete with ornaments and beads of *Haliotis* and *Olivella*, bone awls, grass saws, whistles and perforated canine teeth. The flaked stone assemblages are characterized by leaf-shaped bifaces and large stemmed and side-notched projectile points. Millingstones, mortars, and pestles are abundant. Distinguishing characteristics of the *Gonzaga Complex* (ca. A.D. 300-1000) include *Haliotis* ornaments and *Olivella* beads that demonstrate influences from the Delta region. Other features indicative of this complex are both extended and flexed burials, portable mortars, shaped pestles, and square to taper stemmed projectile points. Bone awls and grass saws are present but not in significant numbers. The final complex in the sequence comes after an apparent 500-year hiatus in the Northern San Joaquin Valley. This abandonment has been attributed to period of adverse environmental conditions that would have discouraged occupation of the area. The *Panoche Complex* (ca. 1500-1850) is identified by the presence of large circular structures, and burial practices that range from flexed to primary and secondary cremations. The cultural assemblages are distinguished by the presence of various types of mortars and pestles, with millingstones numbering few in comparison with earlier complexes in the sequence. Bone awls, grass saws and whistles are present. Projectile points are characteristically small and side-notched. Shell beads of *Haliotis* and *Olivella* again as with the preceding *Gonzaga Complex*, are not dissimilar to those found in association with *Late Horizon* sites in the Delta. Essentially, this sequence describes peoples dependent on hunting

and the gathering of acorns, and who maintained trade relationships throughout the latter three complexes with peoples from the Delta, the Central Coast, and inland areas. It is thought that the *Panoche* and possibly the *Gonzaga Complex*, illustrate the presence of *Yokuts* peoples who are known to have occupied this portion of the San Joaquin Valley at the time of European contact. The earlier complexes are more problematic to ascribe to a particular ethnic or linguistic group. Furthermore, it is known in the ethnographic record that the Northern San Joaquin Valley was also within the margins of *Plains Miwok* and *Castanoan* groups.

B. Previous Studies within the San Joaquin River National Wildlife Refuge

In a document prepared for conservation planning at the San Joaquin River National Wildlife Refuge (SJRNWR) (Valentine, 2000), it is illustrated that since 1980, sixteen (16) cultural resource studies have been undertaken on or directly adjacent to the refuge. Additionally, the presence of site records from as far back as the late 1930's show that archaeological investigations in some form or another (those from the earliest times most likely being amateur ones) have occurred within the current refuge boundary for the past seventy years. In spite of the period of time over which these studies have been conducted, only a small fraction of the total refuge acres have been inventoried for cultural resources. To date, there has not been a systematic comprehensive cultural resources study conducted within the refuge. However, those studies undertaken thus far have produced a total of eight recorded prehistoric sites and three recorded historic sites. The prehistoric sites fall into two distinct classes. Four of these sites are villages with associated burials. The remaining four sites are single activity resources consisting only of burials. These sites have not been formally evaluated for their eligibility to the National Register of Historic Places (NRHP), but are for the present being *treated* as being potentially NRHP eligible. The historic sites include Estaneslao's Stronghold Battle Site, the town site of New Hope, and the Vierra Dairy. The former two of these historic sites are listed on the register of California Historic Landmarks and although not currently evaluated, are like the recorded prehistoric sites within the refuge, being *treated* as eligible to the NRHP. The U.S. Fish and Wildlife Service, in consultation with the California State Historic Preservation Officer, has determined that the Vierra Dairy, currently the site of the SJR NWR offices, not to be eligible to the NRHP. An overlay of these known sites with the fire perimeter map indicated that only two of these resources, CA-STA-26, and CA-STA-34, both village sites with associated burials, and recorded in 1939 and 1956 respectively, are located within the burn area. One site, CA-STA-395 located and recorded in 1997 (Peak, 1998) during a flooding episode that resulted in multiple breaches to the levee above the former channel of the San Joaquin River lies just outside of the burn area, but is in the vicinity of staging activities that occurred during fire suppression.

C. Reconnaissance Methodology

A pedestrian reconnaissance survey was performed to address the issues and objectives set forth above. This survey was preceded by a review of the existing literature and records concerning known cultural resources locations within the SJRNWR. Global Positioning System (GPS) technology was used in combination with the descriptions and sketch maps included with the site records to navigate to site locations. Site CA-STA-395 was easily accessible. However, dense ground cover in the field to the west of the levee made traditional survey transects impractical, thus necessitating the employment of intuitive methods including inspection of rodent back dirt piles and the surface of an access road that parallels the levee. Access to the location of CA-STA-34 was on foot. The site location is adjacent to a slough that marks a former channel of the San Joaquin River. It lies in a part of the burn area that exhibits a mosaic pattern. Ground cover varied between 10-100%. Where practical, in areas of low percentage of ground cover, systematic transects were walked at approximately ten meter intervals to cover an area of approximately 100 square meters around the centroid that describes the recorded site location. Site CA-STA-26 was reported to be located in a cutbank of the San Joaquin River. While the river terrace immediately above and to the east of the site location was accessible on foot, the cutbank itself was not easily accessible. In order to observe the cutbank that describes the reported location of this site, a spotting scope was positioned along a breach in the levee approximately 30-50 meters downstream from the site location. The cutbank was then scanned using the spotting scope along a distance of approximately fifty meters on either site of the point at which the site was reported to have been located. Additionally, in an effort to identify any surface indications of the site, several systematic transects spaced approximately ten meters apart were walked along the terrace above the cutbank in the burn area.

D. Findings

A cursory inspection of the area around site CA-STA-395 failed to identify any cultural material. Much of the field to the north of the levee where the site is located is currently covered in dense vegetation. In any case, the site is not subject to either the effects of fire or was it affected by fire suppression activities. There is no risk to this resource from emergency stabilization efforts that may be recommended as part of this BAER plan. No evidence could be found to support the existence of site CA-STA-34. The coordinates for this site location lie amidst a dense thicket of willow above an abandoned channel of the San Joaquin River. The site was first reported in 1956, and given its location along a slough characterized by reworked deposits of sandy alluvium, it is likely that the site is either buried, or that it has since been obliterated by flood events. If it is assumed that the site still exists, but is protected by alluvium and dense stands of vegetation, it is still at no risk from post-fire effects, and would not be subject to effects as the result of emergency stabilization treatments resultant from BAER related activities. CA-STA-26 was originally reported in 1939. Up until now, there have been no efforts to relocate or update the record for this site. It is purported to have been exposed in a cutbank of the San Joaquin River. Efforts to re-identify the site produced negative findings. The cutbank along this segment of the river is being actively undercut. Furthermore, there have been numerous flood events since 1939 that may have served to destroy any remaining cultural constituents. A surface inspection of the terrace above the cutbank also produced negative findings. Since it is likely that site CA-STA-26 no longer exists, the issue of post-fire effects or adverse effects as the result of emergency stabilization activities is rendered moot.

IV. RECOMMENDATIONS

A. Emergency Stabilization

None required.

B. Management Recommendations (non-specification related)

While wildland fire has the potential to adversely effect cultural resources, it also offers the unique opportunity to perform inventories in areas that were previously inaccessible. Additionally, in areas where fire has effectively removed the ground cover, archaeological sites may be exposed that were not previously visible on the surface. The potentially negative consequences of improved surface visibility are that it increases the likelihood for looting and/or vandalism. Given these conditions, the following non-specification recommendations are offered:

- A systematic and comprehensive cultural resources inventory should be carried out within the burn area.
- USFW Law Enforcement should temporarily increase patrols in exposed areas of the burn that are easily accessible to looters and vandals until such time that re-vegetation has occurred.

V. CONSULTATIONS

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INTERAGENCY
BURNED AREA EMERGENCY STABILIZATION PLAN

PELICAN FIRE

WILDLIFE RESOURCE ASSESSMENT

I. OBJECTIVES

- Assess effects of fire and suppression actions to Federally listed Threatened, Endangered, and Proposed species and their habitats.
- Conduct Section 7 Emergency Consultation with the U. S. Fish and Wildlife Service.
- Prescribe emergency rehabilitation measures and/or monitoring.
- Assess effects of proposed rehabilitation actions to listed species and habitats.

II. ISSUES

- Five Federally listed species and/or habitat areas occur within the fire area.
- One Federally listed species was affected by fire suppression actions.

III. OBSERVATIONS

A. Background

The Pelican fire burned approximately 1,453 acres of the San Joaquin River National Wildlife Refuge (SJRNWR) between July 19, 2004 and July 24, 2004. Less than 5 acres of privately owned land east of the San Joaquin River were impacted. The fire began at approximately 1430 hours on July 19 south of Highway 132 in the Gardner's Cove area of the Refuge. Pushed by winds of 20-25 mph the fire quickly spread south across this area, spotted over the San Joaquin River, and ignited on the west unit of the Refuge. The fire burned through the north Vierra field, along Hospital Creek, and across all of Christman Island. Most of the fire stopped at the road along the southern border of Christman Island, with a small run made south of the road along the levee bank of the San Joaquin River. The fire consumed most of the burned area in the first fire period. The fire was contained at 16:00 on July 24th, with control expected July 28th. Cause of the fire is under investigation.

No dozer, disc, or plow lines were constructed to suppress the fire. A fire line of approximately 1,624 feet was constructed by hand around a hot spot in preparation for a burn out operation conducted on July 23. The line consisted of a 5 to 6 foot scrape to mineral soil within a 15 to 18 foot wide saw cut on the west and south sides of the 8.52 acre backfire area. The operation resulted in a top kill of approximately 30% of the vegetation within the area. Additional suppression actions included construction of one safety zone and use of 12 miles of existing roads. A CDF helicopter dropped water on the fire area; no fire retardant was used.

Within the 1,453 acre burn area, the level of short term brush cover loss was quantified as high, medium and low. The Vegetation Mortality Map illustrates the spatial relationship between these areas.

VEGETATION MORTALITY OR SHORT TERM LOSS OF BRUSH COVER	ACRES
HIGH 80-100%	413
MEDIUM 40-80%	284
LOW 0-40%	605
UNBURNED	151

TOTAL	1,453 acres

The climate at the Pelican Fire site is hot and dry in the summer with mild winters. The amount of precipitation is low with approximately 10 inches of rain falling during fall and winter months. Elevations on the burn site are less than 50 feet above sea level. The native topography is relatively flat with some surface relief as a result of flooding and river channel formation.

Black willow/cottonwood riparian and oak woodland plant communities comprise the majority of the fire area. In addition to black willow and cottonwood, this riparian habitat type contains sandbar willow, box elder, California rose, California blackberry, and basket sedge. Oak woodlands are dominated by valley oak with an understory that includes mugwort, gum plant, California rose, California blackberry, and creeping wild rye. Hospital Creek flows through the northeastern side of the burn, and conveys agricultural run-off to the San Joaquin River. Other water courses found in the burn area include a series of oxbows and sloughs in which the levels fluctuate as the San Joaquin River rises and falls.

The Pelican Fire area is located within the Pacific Flyway. Habitats within the burn area serve as breeding, foraging, and staging habitat for over 150 species of migratory and resident birds. These habitats also support 23 mammal, 11 reptile and amphibian, and numerous invertebrate species.

B. Reconnaissance Methodology and Results

Information for this assessment is based on a review of relevant literature, SJRNWR wildlife sighting and habitat inventory information, consultation with U. S. Fish and Wildlife Service, and personal communication with SJRNWR and management personnel, as well as California State University Stanislaus Endangered Species Recovery Program (ESRP) Biologists. Information on the effects of the fire came from interviews with fire suppression personnel and fire area reconnaissance on July 23, 24 and 25. To better understand the species habitat information briefly discussed in this wildlife assessment, it is important to review the Pelican Fire BAER Vegetation Assessment. That report contains more detailed descriptions of pre-fire vegetation and post fire vegetative recovery estimates.

The purpose of this assessment is to discuss the potential effects of fire, suppression actions and proposed emergency rehabilitation activities to federally listed species. Only some of the total array of species that may occur in the area are discussed in this report. The list of species to be addressed was developed from documents referenced in this report and input from SJRNWR and ESRP Biologists.

This assessment is not intended to definitively answer the many specific species effects questions that are inevitably raised during an incident such as the Pelican Fire. The only focus of this assessment is to determine the potential for immediate, emergency actions that may be necessary to prevent further impacts to listed species occurring on SJRNWR lands.

C. Findings

1. Biological Assessment for Federally Listed Species

Direct effects as described in this report refer to individual mortality, or disturbance that results in flushing, displacement or harassment of the animal. Indirect effects refer to modification of habitat and/or prey species and possible subsequent affects to the species.

BALD EAGLE: Bald Eagles are winter migrants through the SJRNWR area. Their use of the burned area as a foraging ground during migration has been documented. Perching or roosting behavior within the burned area has not been observed.

DIRECT EFFECTS: No bald eagles were present during the time of the Pelican Fire.

INDIRECT EFFECTS: Indirect effects to the bald eagle from fire effects to the vegetation are likely negligible, as most foraging is conducted in the river. No perching or roosting within the fire area has been observed.

POST FIRE OBSERVATIONS: No bald eagles were observed during post fire reconnaissance.

RIPARIAN BRUSH RABBIT: The riparian brush rabbit (RBR) is California and Federally listed as an endangered species. The species recovery strategy is documented in the Recovery Plan for Upland Species of the San Joaquin Valley,California (FWS 1998). RBRs occupy riparian plant communities in the northern San Joaquin Valley that are dominated by thickets of willows and large clumps of shrubs and vines such as wild rose and blackberries. The shrubs provide nesting sites as well as protection from the numerous raptors and mammals that prey on RBRs. The rabbits also use small clearings adjacent to riparian shrubs to forage on grasses, sedges, clover, forbs, shoots and leaves. Such plant communities in the San Joaquin Valley have been reduced to less than one percent of their historical extent. Known populations of RBR are limited to acres within Caswell Memorial State Park, SJRNWR and small populations in the South Delta Region. As far as is known, all other historical habitat for RBR habitat along the San Joaquin River and its tributaries has been lost. Therefore, the effects of the Pelican Fire to the animals and the habitat may significantly impact the RBR species recovery effort.

DIRECT EFFECTS: It is expected that RBRs that occurred within the area at the time of the fire attempted to flee as the flames approached. Depending on where the rabbits were located, there may have been no safe place to flee to. Based on July 6, 2004 telemetry data, it is known that approximately 48 radio collared rabbits occurred within or adjacent to the fire area. Post fire monitoring to determine mortality of radio collared rabbits provided the following information:

- July 23: 48 radio collared rabbits checked (those associated with both release pens 1 and 2) with 46 live signals, one unknown and one mortality mode signal.
- July 26: 24 radio collared rabbits checked (those associated with the northern release pen 2), with 22 live signals, one unknown and one mortality mode signal.

At the time this report was written (July 27, 2004), exact rabbit mortality figures were unknown. No RBR carcasses were found during post fire reconnaissance as of July 25, 2004. A single radio collar was recovered that belonged to a male released into the fire area in 2002. The collar transmitter had failed before the fire occurred, so it is not known if this RBR perished as a result of the fire or before the fire occurred. RBRs that may have perished in the fire would probably have been immediately consumed by scavenger species. Post fire telemetry, monitoring and ground search for rabbits continues to occur to determine fire caused mortality and subsequent mortality that may occur as a result of cover and forage loss or fire related injuries. This work was delayed until July 29, 2004 due to safety issues.

INDIRECT EFFECTS: Approximately 1,050 acres of RBR habitat occur within the Pelican Fire area. The vegetation used by the RBR for cover and reproduction is primarily located along the water ways consisting of thick California wild rose and California blackberry with an overstory of cottonwood and black willow. Foraging occurs in areas within or adjacent to the thick brush with grasses, sedges, forbs. During post fire reconnaissance, it was observed that much of the cover and reproductive habitat was burned in small clumps, of less than 1 acre. Much of the heavy brush vegetation burned completely, removing all of the understory cover. It is possible that the short term loss of cover habitat will benefit the RBR because the brush species will resprout and forbs/grasses should increase to provide increased foraging habitat during the short term.

PELICAN FIRE VEGETATION		
VEGETATION MORTALITY OR SHORT TERM LOSS OF BRUSH COVER	**ACRES RIPARIAN BRUSH RABBIT HABITAT**	**ACRES ENTIRE FIRE AREA**
HIGH 80-100%	389	413
MODERATE 40-80%	186	284
LOW 0-40%	425	605
UNBURNED	50	151
TOTALS	1,050 acres	1,453 acres

POST FIRE OBSERVATIONS: No RBRs were observed during post fire reconnaissance.

The following information was provided by Ken Griggs, Wildlife Biologist, SJRNWR
RIPARIAN WOODRAT: Confirmation of the presence of riparian woodrats on the Refuge and within the Pelican Fire burn area is still pending. Before the fire, a species of woodrat had been captured within the riparian zone in the burn area but genetic testing has not been completed. The dense riparian understory along Hospital Creek is optimal habitat for this species. A population of riparian woodrats has been documented approximately 5 miles down river at Caswell State Park in a similar habitat type.

DIRECT EFFECTS: It is thought that if riparian woodrats were present during the fire they would flee or enter underground holes to escape the flames.

INDIRECT EFFECTS: Riparian habitat directly adjacent to the water channels burned in the fire. Any woodrat nests within the burned areas were destroyed. The backfire in the Hospital Creek area did not burn to the waters edge, therefore the suppression actions likely had little effect on woodrat habitat.

POST FIRE OBSERVATIONS: No riparian wood rats were observed during post fire reconnaissance.

GIANT GARTER SNAKE: The giant garter snake has not been documented on the Refuge or in the burn area. The area does lie within the species historic range and does include suitable habitat.

DIRECT EFFECTS: If present, direct effects were likely negligible as few areas of suitable habitat (within and along water courses) were significantly impacted. In addition, individuals are highly aquatic and could easily find water to escape into.

INDIRECT EFFECTS: A temporary loss of cover may have resulted in a few areas of GGS habitat causing minimal indirect effects.

POST FIRE OBSERVATIONS: No giant garter snakes were observed during post fire reconnaissance.

VALLEY ELDERBERRY LONGHORN BEETLE: Valley Elderberry Long-Horned Beetle (VELB) have not been detected within the burned area. A limited number of elderberry bushes large enough (> 1 inch in diameter) to support VELB are scattered throughout the burned area.

DIRECT EFFECTS: If any VELB occurred within the fire area it is likely that they would have perished.

INDIRECT EFFECTS: Any habitat within the fire area was likely lost until the elderberry bushes resprout and grow to adequate size.

POST FIRE OBSERVATIONS: No valley elderberry longhorn beetles were observed during post fire reconnaissance. Two elderberry bushes with stems >= 1 inch diameter were observed. Both bushes were top killed by the fire.

2. Other Species of Importance

While no threatened or endangered neotropical migrant species are supported by the habitats burned by the Pelican Fire, the damage caused to these habitats could have negative impacts to these species. The loss of riparian habitats may be the most important cause of population decline among landbird species in western North America. With over 95% of California's riparian habitat destroyed, significant losses of more habitat, even short term losses, can have negative impacts to populations. Over 80 species of neotropical migrants use areas burned by the Pelican Fire as breeding, foraging, and migratory stop over habitat. These species include: Nuttall's woodpecker, Swainsons Hawk, California thrasher, oak titmouse, rufous hummingbird, and loggerhead shrike. In cooperation with Point Reyes Bird Observatory, five years of data on species reproductive success, abundance, distribution, and demographics have been collected within the burn perimeter. Continued studies should examine the effects of the Pelican Fire to the riparian habitat and the species it supports in order to document and mitigate any negative effects to neotropcial migratory bird populations, as well as increase understanding of vegetation management practices that maintain, restore and enhance the habitats used by these species.

PELICAN FIRE SPECIES LIST

A species list was obtained from the U. S. Fish and Wildlife Service website on July 23, 2004 for the Westley and Ripon Quandrangles. Ken Griggs and Kim Forrest reviewed the list provided for the fire area on July 23, 2004 for accuracy, and to determine which species or Critical Habitats may occur within the fire area. The following federally listed species occur, or have habitat within the fire area, or were potentially affected by fire suppression actions:

SPECIES	SCIENTIFIC NAME	LISTING STATUS
Bald eagle	*Haliaeetus leucocephalus*	T
Riparian brush rabbit	*Sylvilagus bachmani riparius*	E
Riparian wood rat	*Neotoma fuscipes riparia*	E
Giant garter snake	*Thamnophis gigas*	T
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	T

The following species were identified by the USFWS as occurring within the Wesley and Ripon USGS Quandrangle areas. Through post fire reconnaissance and consultation with local experts, it was determined that these species or their Critical Habitat were not affected by the fire (no habitat within or adjacent to the fire area and/or inventories prior to the fire determined absence), or expected to be affected by potential post-fire flooding.

SPECIES	**SCIENTIFIC NAME**	**LISTING STATUS**	**REASON FOR NOT ADDRESSING SPECIES IN THIS REPORT**
San Joaquin kit fox	*Vulpes macrotis mutica*	E	No habitat within fire perimeter
Delta smelt	*Hypomesus transpacificus*	T	No habitat within fire area. No potential for post fire flooding, runoff or debris flow into habitats that may occur below fire area.
Central Valley steelhead	*Oncorhynchus mykiss*	T	No habitat within fire area. No potential for post fire flooding, runoff or debris flow into habitats that may occur below fire area.
Central Valley spring-run Chinook salmon	*Oncorhynchus tshawytscha*	T	No habitat within fire area. No potential for post fire flooding, runoff or debris flow into habitats that may occur below fire area.
Winter-run chinook salmon	*Oncorhynchus tshawytscha*	E	No habitat within fire area. No potential for post fire flooding, runoff or debris flow into habitats that may occur below fire area.
California red-legged frog	*Rana aurora draytonii*	T	No habitat within fire area.
California tiger salamander	*Ambystoma californiense*	PT	No habitat within fire area.
Vernal pool fairy shrimp	*Branchinecta lynchi*	T	No vernal pools within fire area.
Conservancy fairy shrimp	*Branchinecta conservatio*	E	No vernal pools within fire area.
Vernal pool tadpole shrimp	*Lepidurus packardi*	E	No vernal pools within fire area.

E = Endangered
T = Threatened
P = Proposed

IV. RECOMMENDATIONS

A. Fire Suppression Rehabilitation

1. Repair RBR Release Enclosure Pen 1.

B. Emergency Stabilization

1. Management:

- Trap and relocate Riparian Brush Rabbits.

2. Monitoring

- Monitor Riparian Brush Rabbits for increased predation and mortality.
- Monitor vegetation recovery and treatments.

C. Rehabilitation

- Management none
- Monitoring none

D. Management Recommendations (non-specification related)

1. It was determined that there were no significant effects to the species included in this assessment caused by the fire or suppression actions. Emergency rehabilitation efforts described in this BAER report are not expected to adversely affect any of these species. Recommendations proposed in the BAER Vegetation Assessment, if implemented in a timely manner, should mitigate fire effects, to some extent, for all species found within the fire area. The determinations documented in this report should be reassessed, and consultation conducted as needed, if additional rehabilitation measures or vegetation management activities are proposed after July 26, 2004. If non-emergency vegetation management activities are proposed for long-term rehabilitation and restoration of the fire area, another Biological Assessment should be prepared.

2. Emergency consultation should be completed by a SJRNWR Biologist.

3. If post fire monitoring of the RBR indicates a significant decrease in the population, it may be necessary to conduct a complete population census to provide information needed for revising species recovery actions. If this census is needed, a detailed protocol should be developed and submitted for ESR funding.

4. The Biological Assessment prepared for this BAER Assessment does not consider potential affects of herbicide application.

DETERMINATIONS OF EFFECT TO THREATENED SPECIES

BALD EAGLE

FIRE EFFECTS: No nesting or winter perch habitat was lost due to the fire. No bald eagles were present during the fire.

SUPPRESSION ACTION EFFECTS: No bald eagles were present within the fire area. No habitat was impacted by suppression actions. Therefore the determination of suppression effects to bald eagle is **no effect.**

PROPOSED EMERGENCY REHABILITATION ACTION EFFECTS: Bald eagles will not be present during implementation of the proposed emergency rehabilitation actions (listed below), and no habitat will be affected. Therefore, the determination of emergency rehabilitation action effects to bald eagle is **no effect.**

RIPARIAN BRUSH RABBIT

FIRE EFFECTS: Approximately 95 percent of the riparian brush rabbit habitat within the fire area was modified by the fire. It is thought that some RBRs perished in the fire, but a high percentage of the radio collared rabbits were alive as of July 26, 2004.

SUPPRESSION ACTION EFFECTS: Approximately three acres of cover and reproductive habitat was removed during fire line construction and back fire operations within the fire area. The habitat lost represents approximately 0.3 percent of the habitat within the fire area. It is thought that there were no radio collared rabbits within the backfire area when this suppression action was taken, however there may have been non-collared rabbits in the area. The back fire was burned in a slow, controlled manner so any rabbits in the area could have fled into adjacent habitat. Although only a small amount of habitat was affected, it is possible that rabbits were flushed or negatively affected by the flames. Because the amount of habitat affected is minimal, and the number of individual rabbits affected is also thought to be low, the determination for suppression effects to riparian brush rabbit across the fire area is **may affect, not likely to adversely effect. This determination may be changed as more detailed information and data is collected on the effects of the fire to the RBR population.**

PROPOSED EMERGENCY REHABILITATION ACTION EFFECTS: All of the proposed suppression and burn area rehabilitation measures should have no effect or a beneficial effect on the riparian brush rabbit and its habitat. Therefore, the determination is **no effect.**

RIPARIAN WOODRAT

FIRE EFFECTS: If this species occurs within the fire area, both habitat and individuals were negatively affected by the fire.

SUPPRESSION ACTION EFFECTS: No riparian woodrat habitat was removed during fire line construction and back fire operations within the fire area. The loss of 3 acres of adjacent habitat may have some affect, but it represents only a small percentage of the habitat within the fire area. It is likely that any woodrats within the backfire area were either not affected or were able to escape into adjacent habitat because the burn was conducted in a slow, controlled manner. Therefore, the determination for suppression effects to riparian woodrat is **may affect, not likely to adversely effect.**

PROPOSED EMERGENCY REHABILITATION ACTION EFFECTS: All of the proposed suppression and burn area rehabilitation measures should have no effect or a beneficial effect on the riparian woodrat and its habitat. Therefore, the determination is **no effect.**

GIANT GARTER SNAKE

FIRE EFFECTS: Aquatic habitat was affected by the fire as the tops of vegetation (bases under water) burned in some areas. If giant garter snakes occurred within the fire area, it is likely that they were able to move into water to escape the flames.

SUPPRESSION ACTION EFFECTS: Aquatic habitat was not affected by the suppression action. If giant garter snake occurred within the back fire area during fire line construction and lighting the back fire, it is likely that the snakes were able to move into adjacent aquatic habitat because the burn was conducted in a slow, controlled manner. Therefore, the determination of suppression effects to giant garter snake is **no effect.**

PROPOSED EMERGENCY REHABILITATION ACTION EFFECTS: Aquatic habitat will not be affected by the proposed suppression and emergency rehabilitation actions. Therefore, the determination of proposed emergency rehabilitation action effects to giant garter snake is **no effect.**

VALLEY ELDERBERRY LONGHORN BEETLE

FIRE EFFECTS: It appears that a few elderberry bushes large enough to support valley elderberry longhorn beetle occurred within the fire area. The two bushes that were observed were top killed by the fire. If beetles were present, they would have been killed by the fire.

SUPPRESSION ACTION EFFECTS: It is highly unlikely that any elderberry bushes occurred within the backfire area. None were observed. Therefore, the determination of suppression effects to valley elderberry longhorn beetle is **no effect.**

PROPOSED EMERGENCY REHABILITATION ACTION EFFECTS: Proposed suppression and burn area emergency rehabilitation actions will have no affect on elderberry bushes or beetles. Therefore, the determination of proposed emergency rehabilitation action effects to valley elderberry longhorn beetle is **no effect.**

SUPPRESSION AND EMERGENCY REHABILITATION MEASURES (detailed information documented in Specifications, Part F)

SUPPRESSION REHABILITATION ACTIONS
Repair rabbit release pen 1
Repair 12 miles of road
Replace 2,740 feet refuge boundary fence; repair 1,625 feet
Replace refuge boundary and closure signs

BURN AREA EMERGENCY TREATMENTS
Monitor riparian brush rabbits; telemetry
Monitor vegetation recovery specific to rabbit habitat
Replace traps burned by fire
Build new release pen
Trap and relocate rabbits if needed
Census rabbit population if necessary
Replace fencing east side of fire
Monitor noxious weeds
Treat noxious weeds
Monitor noxious week treatment
Native grass seeding

V. CONSULTATIONS

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VII. ATTACHMENTS

- U. S. FWS Species lists dated July 23, 2004 for Westley and Ripon Quandrangles.
- Map: Riparian brush rabbit habitat within Pelican Fire area overlaid with vegetation morality and shot term brush cover loss.
- Emergency consultation documentation on file at the San Luis Rey National Wildlife Refuge Complex Office.

Karen Hayden, USDA Forest Service, Tahoe National Forest, 530-478-6244

INTERAGENCY
BURNED AREA EMERGENCY STABILIZATION PLAN

PELICAN FIRE

VEGETATION RESOURCE ASSESSMENT

I. OBJECTIVES

- Evaluate vegetative mortality/short-term brush cover loss in riparian brush rabbit habitat
- Evaluate and assess fire and suppression impacts to vegetative resources and identify values at risk associated with vegetative losses.
- Determine emergency stabilization needs supported by specifications to aid in vegetative recovery.
- Evaluate potentials for invasive plant species encroachment into native plant communities and riparian brush rabbit habitat within the fire area.
- Evaluate and assess fire and suppression impacts to fences and other refuge developments.
- Provide management recommendations to assist in vegetative recovery and species habitat protection and rehabilitation.

II. ISSUES

- Short and long-term impacts to plant communities and vegetative resources on the San Joaquin River National Wildlife Refuge lands within the Pelican Fire.
- Protection and enhancement of other resource values including site productivity and riparian brush rabbit habitat.
- Management strategies which provide for the natural recovery and revegetation of heavily impacted areas.
- Identification, early detection, and potential of noxious weed spread into the burned area.

III. OBSERVATIONS

This report identifies and addresses known and potential impacts to vegetative resources within the Pelican Fire on the San Joaquin River National Wildlife Refuge (SJRNWR).

Findings and recommendations contained within this assessment are based upon information obtained from personal interviews with SJRNWR staff, literature reviews, and field reconnaissance of the fire area. Reconnaissance of impacted areas was conducted utilizing ground survey methods and satellite imagery.

This assessment will attempt to capture the concerns and issues expressed by the SJRNWR staff and researchers from the Endangered Species Research Project (ESRP) California State University, Stanislaus for the future management of the lands in and near the fire area. It will detail the known damage to the vegetative resource and will outline expected post-fire response and recovery of the vegetation; will discuss revegetation needs and noxious weed encroachment; and outline management considerations for recovery of the vegetative resources. The need to improve or restore

vegetation in riparian brush rabbit habitat will follow guidelines outlined found in the Recovery Plan for Upland Species of the San Joaquin Valley, CA.

D. Background – The Pelican Fire started on July 19, 2004 at 1430 hours (2:30 pm). High temperatures, low relative humidities, high winds, and very low live fuel moistures resulted in a fast moving fire with rapid rate of spread through the valley oak woodland, riparian shrub, and blackberry-rose communities. Due to the observed high fire behavior in the riparian vegetation, it was assumed the 100 and 1,000 hour fuels were below normal for this time of year. The incident was an extended initial attack (Type III) and was covered local resources. Peter Kelley, Fire Management Officer for the SJRNWR, became Incident Commander for the Pelican Fire. A total of 1,453 acres have been impacted by the fire, all of which are on lands administered by the SJRNWR.

Resource concerns expressed by SJRNWR and ESRP staff for vegetative resources include vegetative loss and short and long-term impacts to riparian brush rabbit habitat, and potential for spread of noxious weeds. Additional resource management direction was obtained from *Recovery Plan for Upland Species of the San Joaquin Valley, California* (1998) and the *Draft San Joaquin River National Wildlife Refuge Comprehensive Conservation Plan* (2004).

E. Reconnaissance Methodology and Results – When the BAER Team arrived meetings were held to assist in directing where resource assessments would be conducted. Information on vegetation, riparian brush rabbit habitat, noxious weeds, possible seeding strategies, and other resources was obtained from the SJRNWR staff. On July 22-25 ground surveys were conducted to map and document vegetation losses/survival and to determine fire effects to vegetative species. Ground reconnaissance included traversing affected areas with an ATV, hiking to remote areas, and recording observations on plant community types, species composition, mortality on vegetation (short-term shrub cover loss in riparian brush rabbit habitat), topographic features, noxious weed species, fences, and suppression damage.

In order to better address resource issues and concerns, each major issue will be discussed separately. Management recommendations follow these issues to better define treatment actions and prescriptions.

1. Vegetation

Black willow/cottonwood riparian and oak woodland plant communities comprise the vast majority of the fire area. In addition to black willow and cottonwood, this riparian habitat type contains sandbar willow (also called narrow-leaved willow), box elder, California rose, California blackberry, and basket sedge. Oak woodlands are dominated by valley oak with an understory that includes mugwort, gum plant, California rose, California blackberry, and creeping wild rye. Hospital Creek flows through the northeastern side of the burn, and conveys agricultural run-off to the San Joaquin River. Other water courses found in the burn area include a series of oxbows and sloughs in which the levels fluctuate as the San Joaquin River rises and falls.

Broad plant communities that occur in the fire area include the great valley oak riparian, black willow riparian forest, permanent, semipermanent, and seasonal wetlands, native grasslands, and annual grasslands. Various plant associations were identified during field reconnaissance of the burn area. They included; valley oak/annual grasslands, valley oak-Fremont's cottonwood-box elder (*Quercus lobata – Populus fremontii –Acer negundo* var. *californicum*), valley oak-sandbar willow (*Quercus lobata-Salix exigua),* valley oak/sandbar willow/basket sedge (*Quercus lobata/Salix exigua/Carex barbarae*), sandbar willow-California blackberry-California rose (*Salix exigua-Rubus ursinus-Rosa californica*), sandbar willow/forb/annual grass, California blackberry-California rose, and California blackberry-California rose/creeping wildrye (*Rubus ursinus-Rosa californica*/*Leymus triticoides*). There are ecotonal associations throughout the burn area.

Other trees and shrubs include buttonbush (*Cephalanthus occidentalis*), Gooding's black willow

(*Salix goodingii*), blue or Mexican elderberry (*Sambucus mexicana*), golden current (*Ribes aureum*), wild grape (*Vitis californica*) and coyote bush (*Baccharis pilularis*). Noteworthy forbs present were gum plant (*Grindelia camphorum*), conyza (*Conyza canadensis),* and spikeweed (*Hemizonia pungens*). Grasses include in addition to those listed above, various exotic annuals (*Bromus* spp., *Avena* spp.), Baltic rush (*Juncus balticus*), and lovegrass (*Eragrostis pilosa*). Some salt grass (*Distichlis spicata*).

Vegetation mortality is a function of how much of the vegetation burned to the ground and how it affects wildlife habitat and short-term recovery. Observations were taken on how much foliage of the trees and shrubs had been removed by fire, if any branches were left and if only staubs were remaining. For forbs and grasses, observations were taken on the amount of above ground vegetative material removed and how much of the root crown remained. About 28% of the vegetation had high mortality. Considering both moderate and high vegetative mortality, about 48% of the vegetative ground and foliar cover was removed to some extent. This will create some loss of wildlife habitat for 1 to 5 years, depending on the plant association present.

Mortality for the entire burn area is summarized here in Table 1:

VEGETATION MORTALITY/SHORT-TERM BRUSH COVER LOSS				
Rating	Unburned	Low (0-40%)	Medium (41-80%)	High (81-100%)
Acres	151	605	284	413
Percent	10	42	20	28

Vegetation resources impacted by suppression activities was not significant.

The majority of fire impacts to vegetation (medium to high short-term brush cover loss), occurred in the sandbar willow-California blackberry-California rose, California blackberry-California rose, and sandbar willow/forb/grass associations. Within the moderate to high vegetation mortality areas, most of the vegetation should recover. The USDA, Fire Effects Information System (FEIS) and input from local agency specialists indicated that the following species should recover in 1-5 years: California blackberry, California rose, sandbar willow, and elderberry.

According to the Recovery Plan for Upland Species of the San Joaquin Valley, California (1998), the riparian brush rabbit needs small openings in the shrub layer for forage habitat. Although the vegetation mortality map (Appendix III) shows blocks of high mortality (significant top-kill of the shrub layer), there are islands of low mortality and unburned blackberry and rose associations scattered throughout the area. Some sites had nearly total top-kill, with adjacent brush having the lower 2 to 3 feet killed with numerous branches hanging down intermingled with green branches and tines, then next to that unburned brush. There is more of a mosaic than the map represents. The islands of green brush are from ¼ acre to 1 acre in size, these surrounded by high mortality shrubs.

There are small openings of forbs and grass within the blackberry/rose associations. Most of the herbaceous layer consists of annual species. There is also sandbar willow/annual forb-grass associations intermixed with the blackberry/rose associations. Riparian brush rabbits and cottontails were seen running in these areas during the reconnaissance. The willow/annual vegetation had low to high mortality and many of these sites were adjacent to low to unburned blackberry/rose associations. In the area called the Peninsula and due east of that in the Christman Island tract, there is more of a mosaic of top-killed brush within an overall area of high mortality.

Much of the area within the Pelican Fire burned in the Christman Fire in 1992. That 450 acre fire consumed 70% of the shrub and herbaceous species. According to a memo dated September 30, 1992, it was stated the habitat of the riparian brush rabbit was eliminated. The memo further said that in 1 ½+ years the impacts from the wildfire should be beneficial. Field reconnaissance on the Pelican Fire that was burned in 1992 revealed some of the unburned blackberry shrubs were over 15 feet high and the density of California rose high.

Regeneration of blackberry occurs through various underground structures, which are well protected from the direct effects of fire by overlying soil; prolific sprouting from rootstalks, roots, and rhizomes is probable even when the aboveground vegetation is totally consumed by fire. Exposed mineral soil can provide a favorable seedbed, and extensive postfire establishment of on-site seed is commonly observed in many blackberries. Birds and mammals may also transport some viable seed from unburned areas into the burn area. High-severity fires, which burn to mineral soil, frequently create a favorable seedbed for buried blackberry seed, and seedlings sometimes germinate in abundance

Rose is moderately fire tolerant and is usually favored by low-severity fire. It can persist after low- to moderate-severity fire because of its ability to sprout from undamaged or buried root crowns and rhizomes. Top-killed plants will sprout from the root crown and surviving underground root structures. It occasionally germinates from on-site or off-site seed sources after fire. Other species of rose have doubled in abundance by postfire year 2.

Elderberry sprouts vigorously after fire and has recovered within 1 year following wildfire; it has been known to sprout within 2 weeks after a wildfire. Wind dispersed willow seeds are probably important in colonization of recently burned areas. Most willows sprout vigorously from the root crown following wildfire. Low to moderate severity fires probably top-kill young black Gooding's willow but mature trees survive such fires.

In order to promote vegetation recovery and maintain ecological integrity of plant communities in the high mortality burn areas, seeding of native grasses and noxious weed control specifications (see noxious weeds below), have been developed.

Seeding will be accomplished using native grass species adapted to the sites selected for treatment. This was done in consultation with staff from the SJRNWR. These recommendations are consistent with existing management guidelines of the FWS. Supplemental funding requests may be filed should existing specifications inadequately provide treatment requirements following closer field review of the impacted areas.

2. Noxious Weeds

Consultation with SJRNWR staff revealed that noxious weed populations existed within the burn area and were being treated under an approved annual IPM plan for San Luis NWRC. The SJRNWR staff said weeds could be expected throughout the area. Field reconnaissance confirmed weed locations and new occurrences were located. Mapped noxious weeds included perennial pepperweed (*Lepidium latifolium*), musk thistle (*Carduus nutans*), bull thistle (*Cirsium vulgare*), Italian thistle (*Carduus pycnocephalus*), and cocklebur (*Xanthium strumarium*). The refuge has documented other weed species, including Scotch thistle (*Onopordum acanthium*), salt cedar (*Tamarix ramosissima*), yellow starthistle (*Centaurea solstitialis*), giant reed (*Arundo donax*), Johnsongrass (*Sorghum halepense*), and tree of heaven (*Ailanthus altissima*). Salt cedar is found primarily along waterways and has the ability to totally choke out all vegetation in riparian areas.

The most prevalent noxious weed in the burn area is perennial pepperweed. Perennial pepperweed reproduces by seed and roots. Plants were in seed and thousands of viable seeds are probably laying on mineral soil. Pepperweed is also a water loving species and the deep

roots of perennial pepperweed will move towards the water table. Where the sandbar willow had high mortality—nearly total top-kill—and was adjacent to perennial pepperweed, there is a high potential that the roots of the pepperweed will quickly occupy the soil profile close to the water table, under the burnt willows. Any water in the water table will be utilized by this opportunistic noxious weed and there is a high probability for perennial pepperweed to infest the sites previously occupied by willow.

Areas of bare mineral soil that are adjacent to existing weed occurrences will probably be occupied by noxious weed seeds. Musk and Italian thistle have the potential to invade the now burned areas with medium to high mortality. See Appendix III, Noxious Weed Map. Emergency Stabilization funds requested in this document will be utilized to complete weed inventories and control of existing weed population inside the burn are to prevent further spread onto uninfested sites.

C. Findings – Vegetative resources were impacted to varying degrees throughout the fire area. The primary impacts were the combination of moderate to high vegetation mortality. Vegetative recovery will occur naturally on the majority of the fire.

1. About 28% of the fire area had 80% or greater top-kill of shrubs in riparian brush rabbit habitat, so natural recovery is anticipated to occur in areas of low and medium vegetation mortality within 1 to 2 years and from 1 to 5 years in the high vegetation mortality areas. Natural regeneration is expected to revegetate the majority of the fire area adequately to protect soil productivity and prevent unacceptable erosion and site degradation.

2. Reseeding within the areas of heavy perennial pepperweed infestation should be accomplished with other planned treatments before the fall of 2005.

3. There is a high potential for noxious weed invasion onto uninfested sites within the burn area. Surveys should be conducted for the next 2 years to locate any new weed occurrences.

4. The openings in the California blackberry-California rose and sandbar willow-California blackberry-California rose associations that have perennial pepperweed encroachment could be sprayed in the spring with a backpack unit using lower rates and followed up in the fall with hand broadcast seeding of native grasses.

IV. RECOMMENDATIONS

A. Emergency Stabilization

1. #, Seeding - Seed either using drill or broadcast methods with selected native grass seed where noxious weeds are expected to increase and compete with natice vegetation.

2. # Noxious Weed Control - Implement Integrated Weed Management practices to control existing weed populations within the fire area to prevent further spread of weeds onto uninfested sites.

3. # , Noxious Weed Monitoring - Monitor for new populations of noxious weeds on travel routes, hand lines, safety zones, and other areas disturbed by suppression activities, and on uninfested areas adjacent to known occurrences of noxious weeds.

V. CONSULTATIONS

Name, title, and agency	Telephone
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Bob Parris, Deputy Refuge Manager, San Luis National Wildlife Refuge Complex, Los Banos, California 93635	209-587-5547

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INTERAGENCY
BURNED AREA EMERGENCY STABILIZATION PLAN
PELICAN FIRE
Stanislaus County, California
Environmental Compliance Considerations and Documentation

A. FEDERAL, STATE, AND PRIVATE LANDS ENVIRONMENTAL COMPLIANCE RESPONSIBILITIES

All projects proposed in the Pelican Fire Burned Area Emergency Stabilization Plan that are prescribed, funded, or implemented by Federal agencies on Federal, State, or private lands are subject to compliance with the *National Environmental Policy Act* (NEPA) in accordance with the guidelines provided by the *Council on Environmental Quality (CEQ) Regulations (40 CFR 1500-1508)*. This Appendix documents the Burned Area Emergency Response (BAER) Team consideration of NEPA compliance requirements for prescribed emergency stabilization and monitoring actions described in this plan for areas affected by the Pelican Fire in Stanislaus County, California.

This plan identifies specific emergency stabilization, rehabilitation, and monitoring actions designed to mitigate damages to resources as a result of the Pelican Fire.

This plan has been developed by an Interagency BAER Team comprised of representatives from the: Bureau of Land Management (BLM), Bureau of Indian Affairs (BIA), U.S. Fish and Wildlife Service (USFWS), and U.S. Forest Service (USFS). The Team consulted with numerous other agencies, organizations, and individuals with subject matter expertise applicable to the proposed treatments (see consultation section below).

Agency Specific Guidance: This NEPA documentation has been developed in accordance with the following agency specific guidelines.

U.S. Fish and Wildlife Service: Emergency stabilization, rehabilitation and monitoring actions proposed on will comply with U.S. Fish and Wildlife Service, NEPA Guidelines, Part 516 (DM 6, Appendix 1)

B. RELATED PLANS AND CUMULATIVE IMPACTS ANALYSIS

Recovery Plan for Upland Species of the San Joaquin Valley, California 1998: The Recovery Plan was designed to recover amongst other Federal endangered species the riparian brush rabbit and riparian wood rat. The riparian brush rabbit occurs within the Pelican Fire burned area and the wood rat is reported but has not been confirmed to occur within the burned area.

San Joaquin River National Wildlife Refuge: The BAER Team Environmental Protection Specialist reviewed the approved San Joaquin National Wildlife Refuge Land Protection Plan, Environmental Assessment.

Cumulative Impact Analysis*:* Cumulative effects are the environmental impacts resulting from the incremental impacts of a proposed action, when added to other past, present, and reasonably foreseeable future actions, both Federal and nonfederal. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. The emergency stabilization treatments for the Pelican Fire burned area, as proposed in this plan, do not result in an intensity of impact (i.e. major ground disturbance, etc.) that would cumulatively constitute a significant impact on the quality of the environment. The treatments are consistent

with the management plans and associated environmental compliance documents of the U.S. Fish and Wildlife Service, and categorical exclusions listed below.

No direct or indirect unavoidable adverse impacts to the biological or physical environment would result from the implementation of this 2003 Southern California Burned Area Emergency Stabilization and Rehabilitation Plan. The implementation of emergency watershed stabilization and rehabilitation treatments proposed in the plan would not result in any adverse effect on the burned area or areas downstream. Conversely, implementation of the plan would be expected to result in a cumulatively beneficial effect by reducing erosion and improving water quality within the burned area.

A. APPLICABLE LAWS AND EXECUTIVE ORDERS

This section documents consideration given to the requirements of specific environmental laws in the development of the 2003 Southern California Burned Area Emergency Stabilization and Rehabilitation Plan. Specific consultations initiated or completed during development and implementation of this plan are also documented. The following executive orders and legislative acts have been reviewed as they apply to the 2003 Southern California Burned Area Emergency Stabilization and Rehabilitation Plan.

1. **National Historic Preservation Act (NHPA).** The BAER Team Cultural Resources Specialists have determined that there were no cultural resources impacted by the Pelican Fire and there compliance with the NHPA is not.

2. **Executive Order 11988, Floodplain Management.** All proposed treatments are in compliance with this order.

3. **Executive Order 11990, Protection of Wetlands.** All proposed treatments are in compliance with this order.

4. **Executive Order 12372, Intergovernmental Review.** Coordination and consultation is ongoing with affected Tribes, Federal, and local agencies. A copy of the plan will be disseminated to all affected agencies.

5. **Executive Order 12892, Federal actions to address Environmental Justice in Minority and Low-Income Populations**. All Federal actions must address and identify, as appropriate, disproportionately high and adverse human health or low-income populations, and Indian Tribes in the United States, The BAER Team has determined that the actions proposed in this plan will result in no adverse human health or environmental effects for minority or low-income populations and Indian Tribes.

6. **Endangered Species Act.** The BAER Team wildlife biologist and vegetation specialist have consulted with the U.S. Fish and Wildlife Service regarding actions proposed in this plan and potential affects on Federally listed species and have determined that there is no effect. Individual agencies are responsible for continued consultations during plan implementation.

7. **Clean Water Act.** All proposed treatments are in compliance with this Act. Emergency stabilization and rehabilitation measures proposed are necessary to maintain clean water within the burn and adjacent areas. Long-term impacts are considered beneficial to water quality.

8. **Clean Air Act.** Federal Ambient Air Quality Primary and Secondary Standards are provided by the National Ambient Air Quality Standards, as established by the U.S. Environmental

Protection agency (EPA) (Clean Air Act, 42 U.S.C. 7470, et seq., as amended). The BAER Team has determined that treatments prescribed in the 2003 Southern California area will have short-term minor impacts to air quality that would not differ significantly from routine land use practices for the area. Long-term treatments proposed in the plan would be expected to have a beneficial impact to air quality through stabilization of ash and soils within the 2003 Southern California area.

9. **Wilderness Act.** The Pelican Fire did not impact designated or proposed wilderness.

D. APPLICABLE AND RELEVANT CATEGORICAL EXCLUSIONS

Accept for chemical treatment of noxious weeds, all treatment actions proposed in this plan are Categorically Excluded from further environmental analysis as provided for in the Department of Interior Manual Part 516. All applicable and relevant Department and Agency Categorical Exclusions are listed below. Categorical Exclusion decisions were made with consideration given to the results of required emergency consultations completed by the BAER Team and documented in Section E below.

Applicable Department of the Interior Categorical Exclusions

Part 516 DM 2, App. 1.1	Personnel actions and investigations and personnel services contracts.
Part 516 DM 2, App. 1.4	Law enforcement and legal transactions, including such things as arrests, investigations, patents, claims, legal opinions, and judicial activities including their initiation, processing, settlement, appeal, or compliance.
Part 516 DM 2, App. 1.6	Non-destructive data collection, inventory (including field, aerial and satellite surveying and mapping), study, research and monitoring activities.
Part 516 DM 2, App. 1.7	Routine and continuing government business, including such things as supervision, administration, operations, maintenance and replacement activities having limited context and intensity; e.g. limited size and magnitude or short-term effects.
Part 516 DM 2, App. 1.11	Activities which are educational, in formational, advisory or consultative to other agencies, public and private entities, visitors, individuals or the general public.
Part 516 DM 6 App. 4.4 M (2)	Establishment of non-disturbance environmental quality monitoring programs and field monitoring stations including testing services.

Applicable U.S. Fish and Wildlife Service Categorical Exclusions

(1) Research, inventory, and information collection activities directly related to the conservation of fish and wildlife resources which involve negligible animal mortality or habitat destruction, no introduction of contaminants, or no introduction of organisms not indigenous to the affected ecosystem.

(2) The construction of new, or the addition of, small structures or improvements, including structures and improvements for the restoration of wetland, riparian, instream,

or native habitats, which result in no or only minor changes in the use of the affected local area. The following are examples of activities that may be included.

i. The installation of fences.
ii. The construction of small water control structures.
iii. The planting of seeds or seedlings and other minor revegetation actions.
iv. The construction of small berms or dikes.
v. The development of limited access for routine maintenance and management purposes.

(3) Fire management activities including prevention and restoration measures, when conducted in accordance with departmental and Service procedures.

E. CONSULTATIONS

California State Historic Preservation Office
Hans Kreutzberg, Supervisor (SHPO), Cultural Resource Program

U.S. Fish and Wildlife Service
David Paullin, Refuge Supervisor, California/Nevada Refuges
Kim Forrest, Project Leader, San Luis National Wildlife Refuge Complex
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Peter Kelly, Fire Management Officer, San Luis National Wildlife Refuge Complex
Dennis Woolington, Senior Wildlife Biologist, San Diego National Wildlife Refuge Complex
Eric Hopson, Refuge Manager, San Joaquin River National Wildlife Refuge
Ken Griggs, Wildlife Biologist, San Joaquin River National Wildlife Refuge
Susan Jones, Endanger Species Biologist, Sacramento Field Office

NEPA CATEGORICAL EXCLUSION DOCUMENTATION AND DECISION

Pelican Fire Burned Area Emergency Stabilization Plan

NEPA CHECKLIST: Based on 516 DM 2, Appendix 2, if any of the following exception applies, the BAER plan cannot be Categorically Excluded and an Environmental Assessment (EA) is required.

(Yes)	(No)	
☐	☒	Adversely affects Public Health and Safety
☐	☒	Adversely affects historic or cultural resources, wilderness, wild and scenic rivers, aquifers, prime farmlands, wetlands, floodplains, ecologically critical areas, or Natural Landmarks.
☐	☒	Has highly controversial environmental effects.
☐	☒	Has highly uncertain environmental effects or involve unique or unknown environmental risks.
☐	☒	Establishes a precedent resulting in significant environmental effects.
☐	☒	Relates to other actions with individually insignificant, but cumulatively significant environmental effects.
☐	☒	Adversely affects properties listed or eligible for listing in the National Register of Historic Places.
☐	☒	Affects a species listed or proposed to be listed as Threatened or Endangered.
☐	☒	Threatens to violate any laws or requirements imposed for the protection of the environment such as Executive Order 11988 (Floodplain Management) or Executive Order 11990 (Protection of Wetlands).

NATIONAL HISTORIC PRESERVATION ACT

Ground Disturbance:

☒ None

☐ Ground disturbance did occur and an archeologist survey, required under section 110 of the NHPA will be prepared. A report will be prepared as specified by the BAER plan.

A NHPA Clearance Form:

☐ Is required because the project may affect sites that are eligible for or listed on the National Register. The clearance form is attached as the Cultural Assessment of the 2003 SoCal Fires BAER Plan. The California SHPO has been consulted under Section 106 (see Cultural Resource Assessment, Appendix I).

☒ Is not required because the BAER plan has no potential to affect cultural resources (_____ initials of cultural resource specialist).

OTHER REQUIREMENTS

(Yes)	(No)	
☐	☒	Does the BAER plan have potential to affect any Native American uses? If so, consultation with affiliated tribes is needed.
☒	☐	Are any toxic chemicals, including pesticides or treated wood, proposed for use? If so, local agency integrated pest management specialists must be consulted.

CONCURRENCE AND SIGNATURES

I have reviewed the proposals in the Pelican Fire Burned Area Emergency Rehabilitation Plan in accordance with the criteria above and have determined that the proposed actions would not involve any significant environmental effects. Therefore, the plan is categorically excluded from further environmental (NEPA) review and documentation. BAER Team technical specialists have completed necessary coordination and consultation to ensure compliance with the National Historic Preservation Act, Endangered Species Act, Clean Water Act and other Federal, State, and local environmental review requirements.

BAER Team, Environmental Protection Specialist **Date**

( ) I concur and it is my decision to approve the plan.
( ) I do not concur because.

Project Leader, San Luis National Wildlife Refuge Complex **Date**

( ) I concur and it is my decision to approve the plan.
( ) I do not concur because.